Best Practices in Web Form Security

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Introduction

When creating a web form, your respondent's trust and security should be your top priority. To help you build trust and boost security, the FormAssembly team conducted a class outlining the most important principles of web form security. The class began with a series of three emails and concluded with a webinar.

This guide aims to help you understand and apply best practices for web form security. You can also use our **FormAssembly Web Security Checklist** to determine whether your web form meets the security standards outlined here.

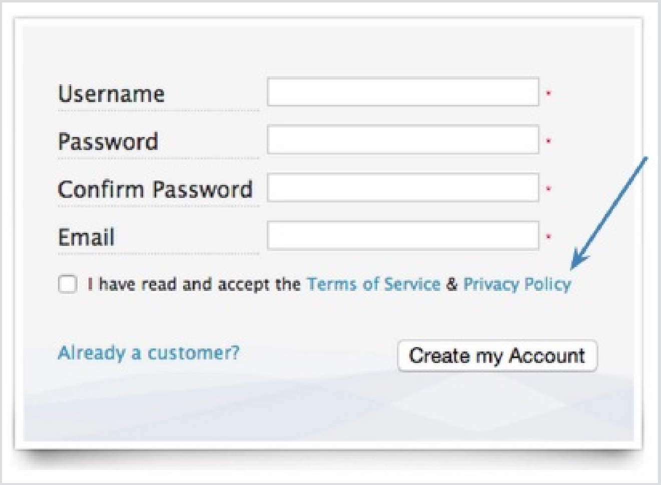
Customer Expectations

When you ask your customers to fill out a form on your website, you are asking for a certain degree of trust. They are providing you with personal information, and by filling out your form, they are trusting you to handle their data safely and securely. In order to maintain this trust and to ensure the security of your customers' data, there are several things to keep in mind.

- Privacy Policy
- Brand Recognition
- Contact Information
- Encryption
- Authentication
- Data Types

Privacy Policy

Your privacy policy tells your customers how you will use their information. When you collect personal data, it's important to have an easily accessible privacy policy. If you don't have a privacy policy, it may be best to consult with a lawyer to help you with this process. To confirm that your customers have read your privacy policy, you might consider adding a check box:



□ I have read and accept the Terms of Service & Privacy Policy

Additionally, it’s worth considering adding your privacy policy to your website. The Privacy Policy applies anytime someone uses your Services. We offer our users choices about the data we collect, use, and share as described in this Privacy Policy, Cookie Policy, and Terms of Service.

Brand Recognition

When people open your form, they must recognize it as part of your organization. Since they are providing you with personal information, there should be no doubt in their mind about who you are. The look and feel of your web form should always be consistent with your website, with the same logos, style, and design.

Contact Information

Your form should include contact information so that your respondents can reach you. If you've embedded your form, your contact information may appear in the footer of your site; however, if not, you'll want to make sure to add that information to the form.

Encryption and Types of Data

Encryption

Encryption is the process of securing data and making it unreadable to people who do not have the key, which is usually the browser or the server. With TLS 1.2, you increase your form's security and help your customers feel more comfortable, especially when they are submitting sensitive or personal information.

Data sent using HTTPS is secured via Transport Layer Security protocol (TLS), which provides three key layers of protection:

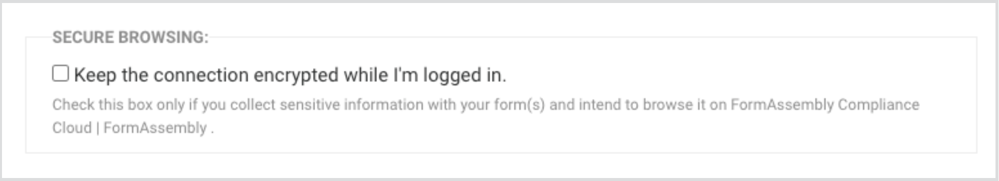
1. Encryption—encrypting the exchanged data to keep it secure from eavesdroppers. That means that while the user is browsing a website, nobody can "listen" to their conversations, track their activities across

multiple pages, or steal their information.

2. Data integrity—data cannot be modified or corrupted during transfer, intentionally or otherwise, without being detected.
3. Authentication—proves that your users communicate with the intended website. It protects against man-in-the-middle attacks and builds user trust, which translates into other business benefits.

If your website does not have a TLS certificate, you can direct respondents to the FormAssembly link to complete the form.

You can also take advantage of the Secure Browsing feature, which ensures that your connection is encrypted if you're collecting sensitive information.



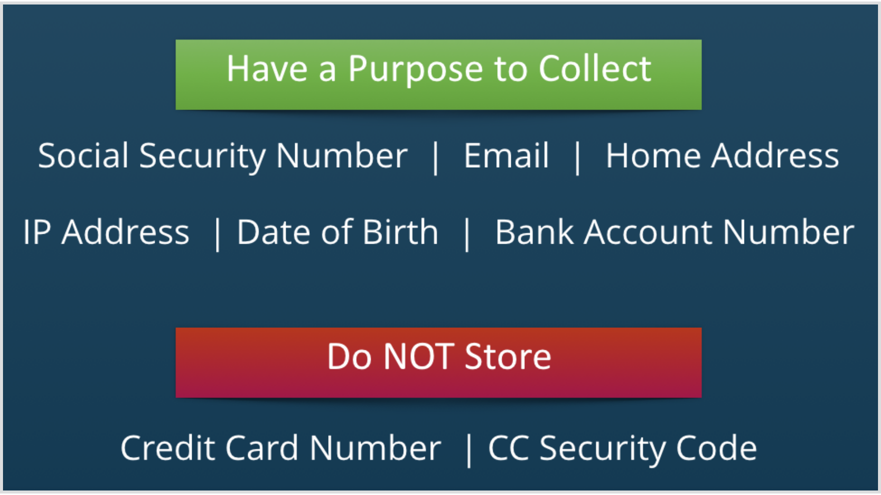
SECURE BROWSING:

☐ Keep the connection encrypted while I'm logged in.

Check this box only if you collect sensitive information with your form(s) and intend to browse it on FormAssembly Compliance Cloud | FormAssembly .

Types of Data

Depending on the types of data you collect, a variety of laws or security regulations may apply to your form. It's always important to make sure that you collect only the types of data that you actually need.



Have a Purpose to Collect

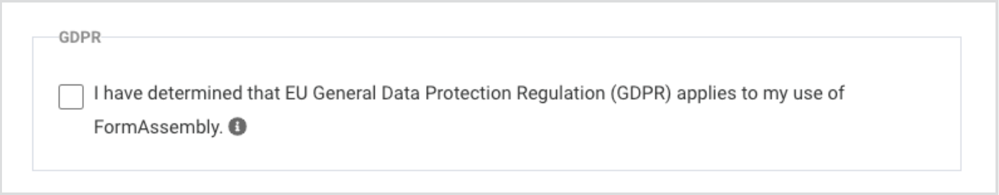
Social Security Number | Email | Home Address

IP Address | Date of Birth | Bank Account Number

Do NOT Store

Credit Card Number | CC Security Code

For example, if you are based in the United States but want to collect data in the EU, you will need to follow those requirements; however, FormAssembly has those controls baked into the product to help.



GDPR

☐ I have determined that EU General Data Protection Regulation (GDPR) applies to my use of FormAssembly. ℹ

PCI Compliance

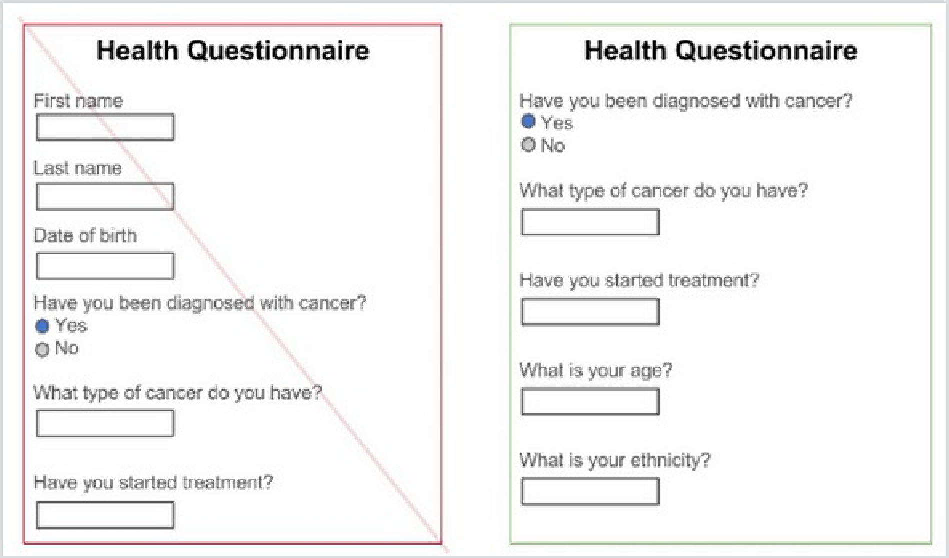
When building a form, it is incredibly important to adhere to all applicable laws concerning collecting and storing electronic data. PCI (Payment Card Industry) compliance governs the collection and use of credit card data.

You MUST collect credit card information through a PCI-compliant provider such as PayPal or Authorize.Net. FormAssembly is PCI DSS certified and meets the standards for PCI Compliance Level 1, which has the strictest requirements. We also offer integrations with PayPal, Stripe, CyberSource, FreshBooks, Authorize.Net, Chargent, and iATS Payments.

PCI password requirements are integrated with FormAssembly; this ensures that you're following the controls to help protect your accounts.

HIPAA and ePHI Compliance

Special laws govern the collection of electronically protected health information (ePHI). In general, the content of the collected data is less important than who collects it and how it is handled. Since FormAssembly is now HIPAA compliant, you can collect ePHI, so long as you are a member of our Enterprise or Government Plans.



Health Questionnaire

First name

Last name

Date of birth

Have you been diagnosed with cancer?
● Yes
○ No

What type of cancer do you have?

Have you started treatment?

Health Questionnaire

Have you been diagnosed with cancer?
● Yes
○ No

What type of cancer do you have?

Have you started treatment?

What is your age?

What is your ethnicity?

Did you know that PHI is any health information that can be tied to an individual, which, under HIPAA, means protected health information includes one or more of the following 18 identifiers?

1. Names (Full or last name and initial)
2. All geographical identifiers
3. Dates (other than year) directly related to an individual
4. Phone Numbers
5. Fax numbers

6. Email addresses
7. Social Security numbers
8. Medical record numbers
9. Health insurance beneficiary numbers
10. Account numbers
11. Certificate/license numbers
12. Vehicle identifiers (including serial numbers and license plate numbers)
13. Device identifiers and serial numbers;
14. Web Uniform Resource Locators (URLs)
15. Internet Protocol (IP) address numbers
16. Biometric identifiers, including finger, retinal, and voiceprints
17. Full face photographic images and any comparable images
18. Any other unique identifying number, characteristic, or code except the unique code assigned by the investigator to code the data

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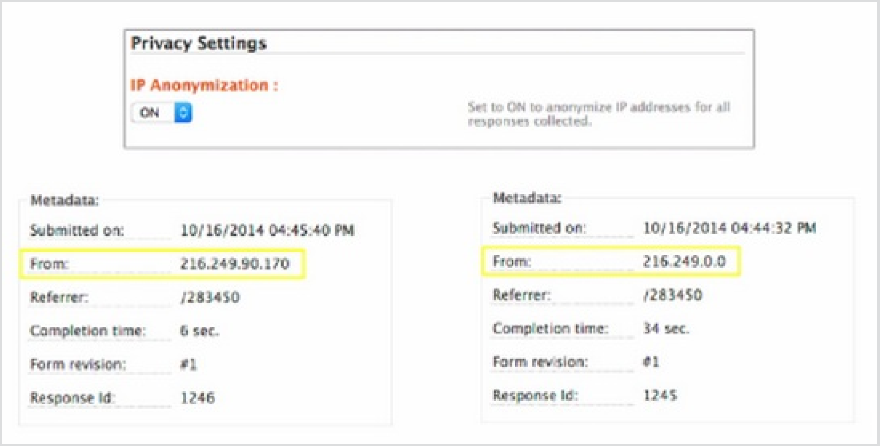
IP Anonymization

If you want to create a completely anonymous survey, simply leaving out a respondent's name and personal information is not enough: the location of the computer can still be determined by the user's IP address.

For Team, Enterprise, and Government Plan users, you can enable the IP Anonymization feature, which will replace the last half of the respondent's IP address with zeros. This guarantees that the IP address cannot be used to identify an individual computer or user.



Privacy Settings

IP Anonymization : ON

Set to ON to anonymize IP addresses for all responses collected.

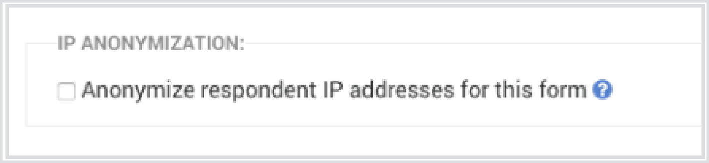
Metadata:

Submitted on:	10/16/2014 04:45:40 PM
From:	216.249.90.170
Referrer:	/283450
Completion time:	6 sec.
Form revision:	#1
Response Id:	1246

Metadata:

Submitted on:	10/16/2014 04:44:32 PM
From:	216.249.0.0
Referrer:	/283450
Completion time:	34 sec.
Form revision:	#1
Response Id:	1245

Additionally, for all users who must be in compliance with the GDPR, you can anonymize IP response addresses on a form-by-form basis.



IP ANONYMIZATION:

□ Anonymize respondent IP addresses for this form

eSignature

For a form that acts as a waiver or contract, you might want to include an eSignature. However, while a signature may feel like the most important part of such a form, it's just as important to include form fields that identify the respondent without question. In short, you want to collect as much information as possible to confirm who the person is **signing** the document.

Accessing Data

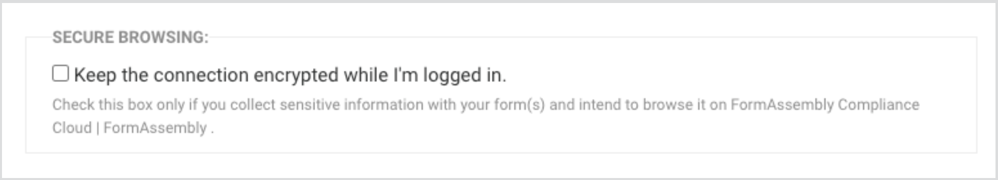
The number one rule for data access within FormAssembly is that your account credentials should never be shared between colleagues. Although this may be less convenient, it is incredibly important to know who accesses data and how they use it. However, to make things easier, we do allow Single Sign-On, which lets you sign into FormAssembly through Salesforce and/or Google Apps.

FormAssembly recommends using a third 3rd password management tool, such as LastPass, to store your passwords.

Secure Browsing and Purging

Secure Browsing

If you read responses from within FormAssembly and you collect sensitive data, you should enable secure browsing, which will enable TLS 1.2 throughout FormAssembly. If you are using FormAssembly through Salesforce, this is enabled by default. Additionally, if you're using the Enterprise edition, administrators can force this option on their users.



SECURE BROWSING:

□ Keep the connection encrypted while I'm logged in.

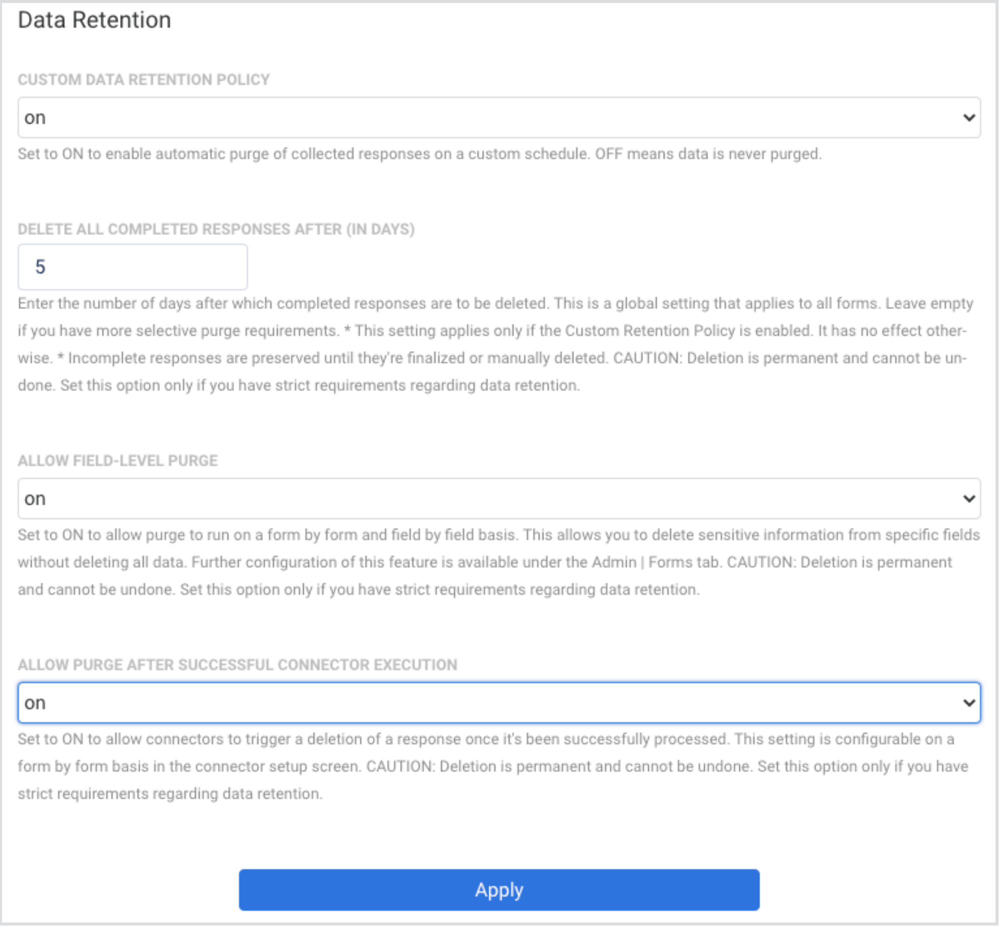
Check this box only if you collect sensitive information with your form(s) and intend to browse it on FormAssembly Compliance Cloud | FormAssembly .

Purging

You can use our purge feature to automatically get rid of sensitive data in FormAssembly Team, Enterprise, and

Government Plans. Doing this will help reduce the risks of data exposure and data theft. You can choose to automatically delete all responses or specific fields after a certain number of days or after the data is successfully sent to Salesforce.

If you visit the Admin Dashboard > Settings > Data Retention, you'll be able to configure that setting.



Data Retention

CUSTOM DATA RETENTION POLICY

on

Set to ON to enable automatic purge of collected responses on a custom schedule. OFF means data is never purged.

DELETE ALL COMPLETED RESPONSES AFTER (IN DAYS)

5

Enter the number of days after which completed responses are to be deleted. This is a global setting that applies to all forms. Leave empty if you have more selective purge requirements. * This setting applies only if the Custom Retention Policy is enabled. It has no effect otherwise. * Incomplete responses are preserved until they're finalized or manually deleted. CAUTION: Deletion is permanent and cannot be undone. Set this option only if you have strict requirements regarding data retention.

ALLOW FIELD-LEVEL PURGE

on

Set to ON to allow purge to run on a form by form and field by field basis. This allows you to delete sensitive information from specific fields without deleting all data. Further configuration of this feature is available under the Admin | Forms tab. CAUTION: Deletion is permanent and cannot be undone. Set this option only if you have strict requirements regarding data retention.

ALLOW PURGE AFTER SUCCESSFUL CONNECTOR EXECUTION

on

Set to ON to allow connectors to trigger a deletion of a response once it's been successfully processed. This setting is configurable on a form by form basis in the connector setup screen. CAUTION: Deletion is permanent and cannot be undone. Set this option only if you have strict requirements regarding data retention.

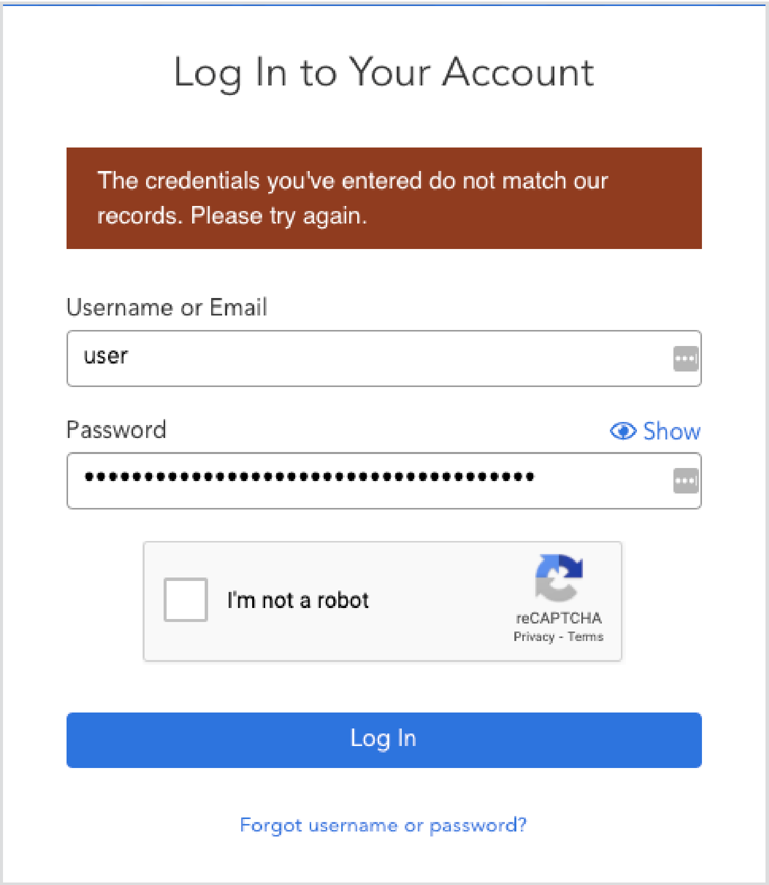
Accessing Data from Other Apps

For connectors like Salesforce and Google Apps, any data that is transferred to those services is automatically encrypted. However, if you're using our Webhook Connector, data encryption depends on how the third-party service is configured. Once your data has left FormAssembly and is stored on a remote service, it is up to that company to ensure the privacy and security of your data.

It is also important to note that email notifications are not secure. Because of this, it is not a good idea to use email notifications to send any kind of sensitive data.

Enabling reCAPTCHA

If your form is collecting payments and is on a public website, we recommend enabling reCAPTCHA. Oftentimes, public forms that accept credit card information can be targeted by spambots, and the best prevention against receiving spam submissions is to enable reCAPTCHA on your form.



Log In to Your Account

The credentials you've entered do not match our records. Please try again.

Username or Email: user

Password: ••

Using Moderation to Review Forms

For admins of Enterprise or Government Plans who would like additional control over their forms before they are live, you can use FormAssembly's moderation features.

By enabling form moderation, an admin will need to preview forms before they go live. This gives you control over what is published and available online, and what is not.

Managing User Permissions

Admins of Essentials Plans and above can also manage the different permissions that each FormAssembly user has access to. This can help control what your users can and cannot do within FormAssembly.

For example, if you want certain users to be able to access the connectors, and others not to have access, you can configure this in the permission settings.