Captricity for Enterprise

Data Privacy, Security & Disaster Recovery Overview

Secure, HIPAA-compliant enterprise data transformation is our specialty at Captricity. We realize the sensitive nature of your business information—the lifeblood of any business—and work closely with all of our customers to ensure Captricity delivers secure, accurate results, which meet or exceed pre-established security requirements. This document describes Captricity's privacy, security and disaster recovery measures used to protect your data. To learn how we safeguard your personal information, see our Terms of Service.

Data Privacy

Captricity is designed for the inevitable reality that some of the documents we process contain sensitive and/or confidential information. We understand and respect the security and privacy regulations of many governing bodies, and do everything we can to help our customers conform to these regulations. To this end, Captricity is built with state-of-the-art security fully integrated into every step of the data digitization process. Specific features include:

Shredded Data Verification

Shreddr™, the technology that powers Captricity, is named after the well-known document-shredding technology used across industries to protect confidential data. Shreddr™ technology works by isolating pieces of information, or data fields, within a form into distinct images. We call the process "shredding" the image and the resulting small pieces "shreds."

Each field, or "shred," is read and digitized out of context from the rest of the form by one of the many data entry workers spread across the globe (from Amazon's Mechanical Turk). The data entry and review process is designed so that each worker is assigned to process a given class or ***type*** of data, such as **last name**, from many forms rather than a group of complete forms. This ensures that every worker sees only one piece of data, or shred, from a single form.

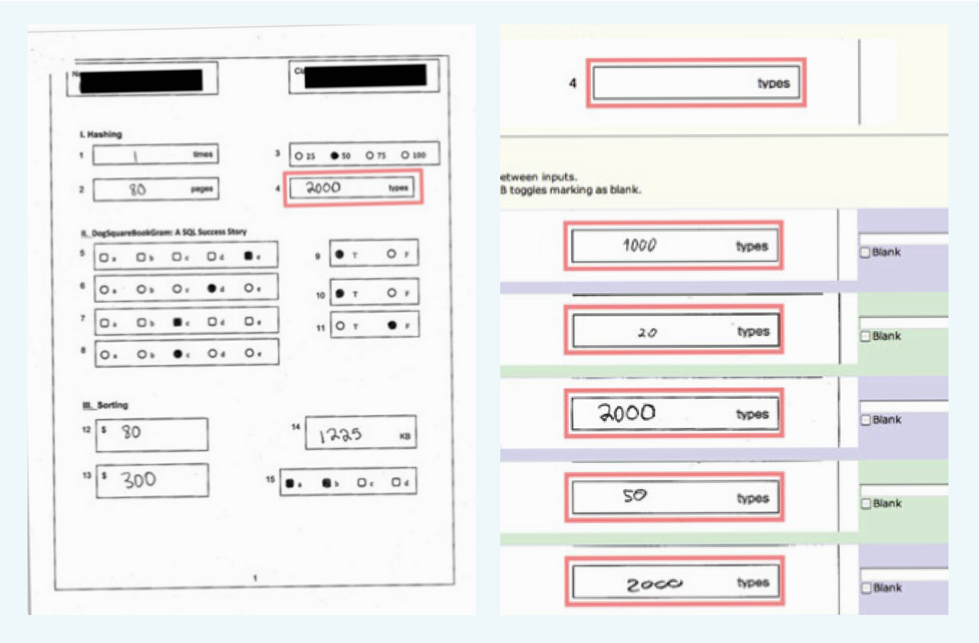
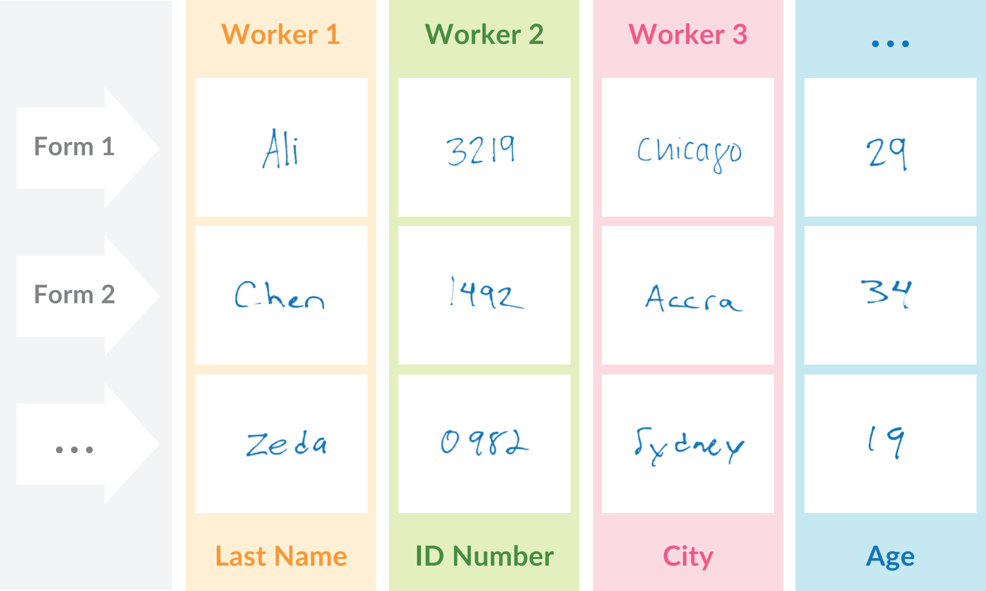

4 types
etween inputs.
B toggles marking as blank.
1000 types
□ Blank
20 types
□ Blank
2000 types
□ Blank
50 types
□ Blank
2000 types
□ Blank

Figure 1.
The original form (left) with the region of the imaged to be shredded in red. The shredded images ("shreds") gathered from multiple forms similar to the one on the left, ready to be extracted (right)

For example, in Figure 2, Worker 2 processes only **ID Number** fields in a "blind" fashion. This means that the worker is not informed about which type of data he/she has been assigned. Worker 2 does not know he/she is processing an **ID Number**.



	Worker 1	Worker 2	Worker 3	...
Form 1	Ali	3219	Chicago	29
Form 2	Chen	1492	Accra	34
...	Zeda	0982	Sydney	19
	Last Name	ID Number	City	Age

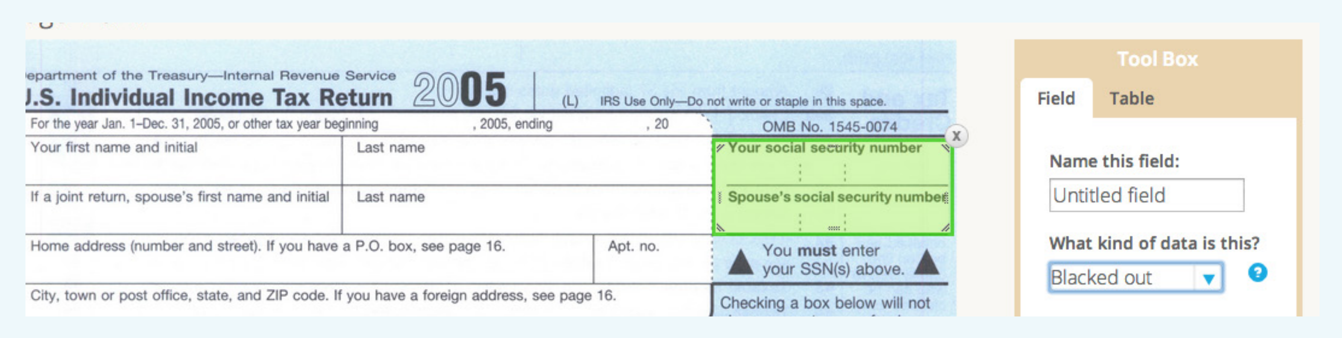
Figure 2.
Workers see images from only one field at a time.

Image Shred Obfuscation

An image pre-processing algorithm protects each shred so that even if someone managed to gather a large collection of shreds, it would be virtually impossible to reconstruct the original form—a feature even paper shredders aren't able to claim!

Redaction

In some cases, if a field of personally identifiable information (PII), such as with social security numbers, does not need to be digitized and the customer prefers it to be digitally redacted from the page image, a customer can choose to black out the field in the Document Markup step. The redacted portions of the image are then further guaranteed to be unviewable by anyone, and will not be included in any displayed results.



epartment of the Treasury—Internal Revenue Service
.S. Individual Income Tax Return 2005 (L) IRS Use Only—Do not write or staple in this space.
For the year Jan. 1–Dec. 31, 2005, or other tax year beginning , 2005, ending , 20 OMB No. 1545-0074
Your first name and initial | Last name | Your social security number
If a joint return, spouse's first name and initial | Last name | Spouse's social security number
Home address (number and street). If you have a P.O. box, see page 16. | Apt. no. | You must enter your SSN(s) above.
City, town or post office, state, and ZIP code. If you have a foreign address, see page 16. | Checking a box below will not

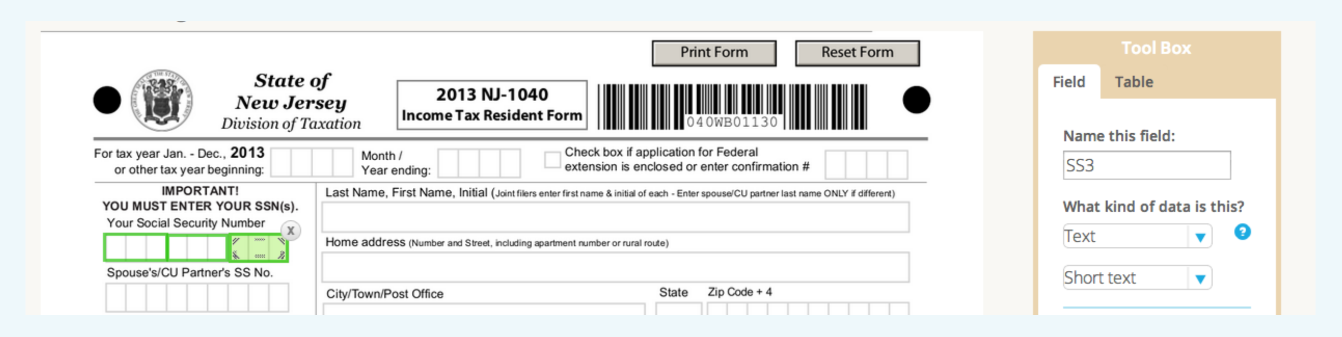
Name this field: Untitled field

What kind of data is this? Blacked out

Figure 3. "Black this out" feature in the defining fields toolbox

Field-Splitting

PII-containing areas can be split into separate fields. For example, the field in Figure 4. breaks a social security number into three separate fields so that each field will be read and digitized by a different worker.



State of New Jersey Division of Taxation

2013 NJ-1040 Income Tax Resident Form

040WB01130

For tax year Jan. - Dec., 2013 or other tax year beginning: | Month / Year ending: | □ Check box if application for Federal extension is enclosed or enter confirmation #

IMPORTANT! YOU MUST ENTER YOUR SSN(s). Your Social Security Number

Spouse's/CU Partner's SS No.

Last Name, First Name, Initial (Joint filers enter first name & initial of each - Enter spouse/CU partner last name ONLY if different)

Home address (Number and Street, including apartment number or rural route)

City/Town/Post Office | State | Zip Code + 4

Name this field: SS3

What kind of data is this? Text

Short text

Figure 4. Social security number broken into three fields

Screened & Certified Workforce

Captricity conducts extensive background screening measures on all Captricity employees, including:

- SSN and address validation
- e-Verify screening via U.S. Department of Security and U.S. Citizenship & Immigration Services
- Annual HIPAA compliance training required
- County, State and Federal criminal record checks
- Sex and violent offender checks
- Terrorist checks

Sharing

We don't share, rent or sell any information to third parties without explicit consent.

Security

Website security

- All communication with the Captricity website, including file upload and download, occurs via HTTPS under AES 256-bit TLS 1.2 encryption.
- Minimum-strength standards are enforced for user passwords, which are encrypted during transmission and storage.
- Web-based application means no software to download, and therefore more protection from computer viruses.
- Single Sign-On optional (SAML 2.0).

Data security

- All data is stored and transmitted using bank-grade encryption.
- Documents and datasets are backed up daily; all backups are encrypted.
- On account cancellation, you may request to have your data permanently purged from our system.

Disaster Recovery

Backup

Captricity has a robust disaster recovery and business continuity program.

Data Availability

We can confidently offer customers the same reliability guarantees that are available to us as users of the underlying networking and data center services. We are often compared to outsourcing models of service where availability is determined by human schedules. In contrast, Captricity offers its services via web and API and is generally in a different echelon of wait time, quality and availability that is not related to human availability.

Compliance

We have successfully completed HIPAA Compliance Assessment with an independent third-party, which has determined that the procedural and technical controls that Captricity has in place meet or exceed all required and addressable standards and safeguards under HIPAA Title II's Security Rule.