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If they can't find your data, they can't steal your data.

Ransomware and data theft are trillion-dollar threats

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Use Cases

Use cases fall into 2 categories: **documents** and **databases**.

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Documents (Word, Excel, email, attachments, reports, briefs)

- Provides the maximum control **at the field level** while making each field data breach-safe, ransomware-safe, quantum computer-safe, and GDPR/CCPA-safe.
- Individually fields are identified programmatically or manually.
- Each field has its own security, rules, permissions, and owner.
- Each can be cut and pasted into other documents.
- No matter where the field ends up, its security, rules, permissions, and owner remain the same.

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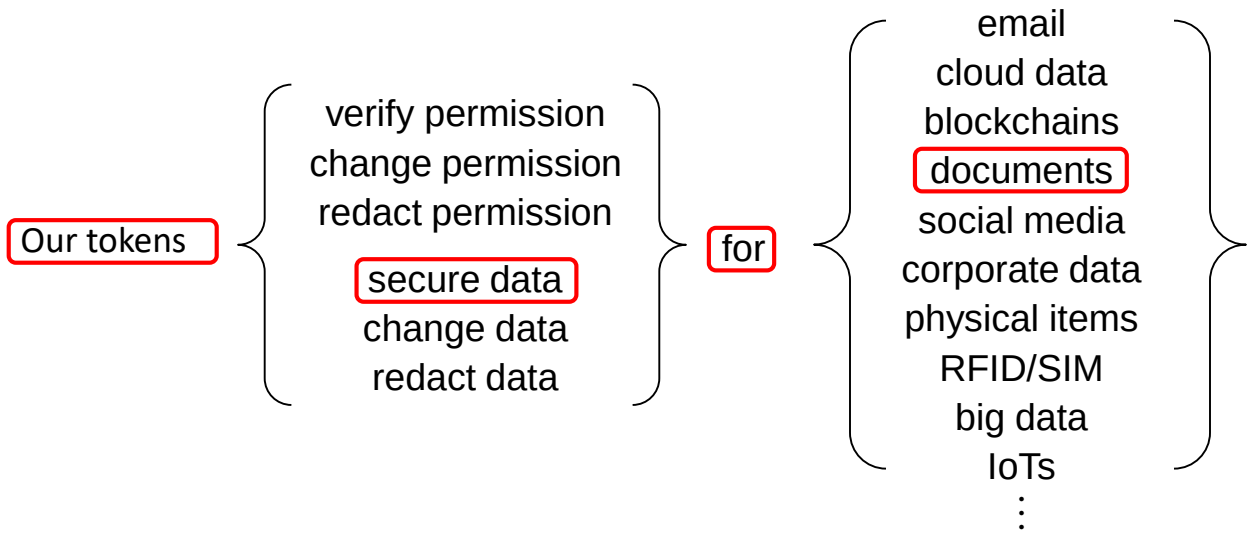
Excel for financial services

We created a proof-of-concept for our first patent – an Excel plug-in that lets users identify sensitive data that is then transparently moved to the Vault.

One random token replaced each Excel cell being secured, and each could be cut and pasted into other Excel files. For large files, we designed a “burst mode” that efficiently moved thousands of tokens back and forth in a single command.

This use case secures data in Excel documents:



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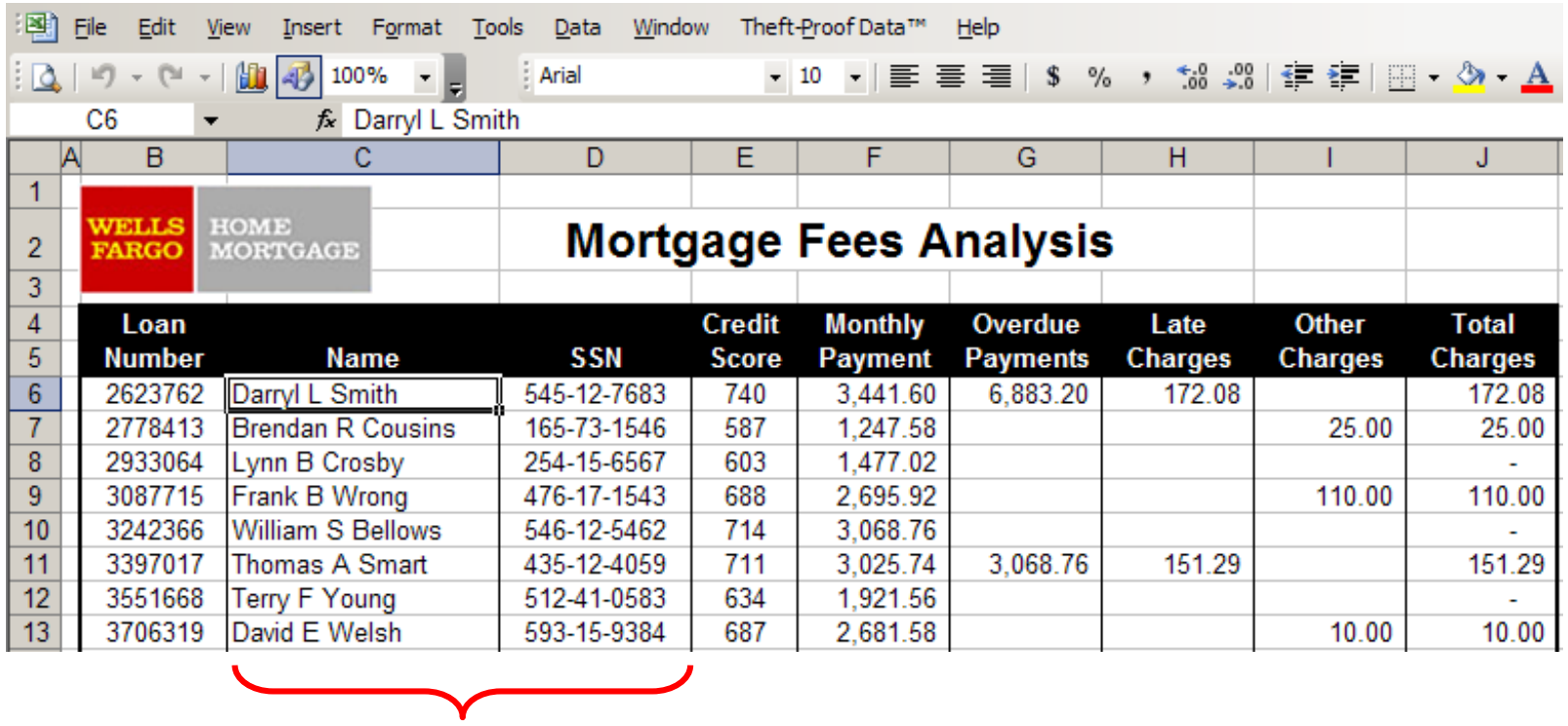
Excel for financial services

Two columns were identified as needing security.



Loan Number	Name	SSN	Credit Score	Monthly Payment	Overdue Payments	Late Charges	Other Charges	Total Charges
2623762	Darryl L Smith	545-12-7683	740	3,441.60	6,883.20	172.08		172.08
2778413	Brendan R Cousins	165-73-1546	587	1,247.58			25.00	25.00
2933064	Lynn B Crosby	254-15-6567	603	1,477.02				-
3087715	Frank B Wrong	476-17-1543	688	2,695.92			110.00	110.00
3242366	William S Bellows	546-12-5462	714	3,068.76				-
3397017	Thomas A Smart	435-12-4059	711	3,025.74	3,068.76	151.29		151.29
3551668	Terry F Young	512-41-0583	634	1,921.56				-
3706319	David E Welsh	593-15-9384	687	2,681.58			10.00	10.00

Sensitive information.

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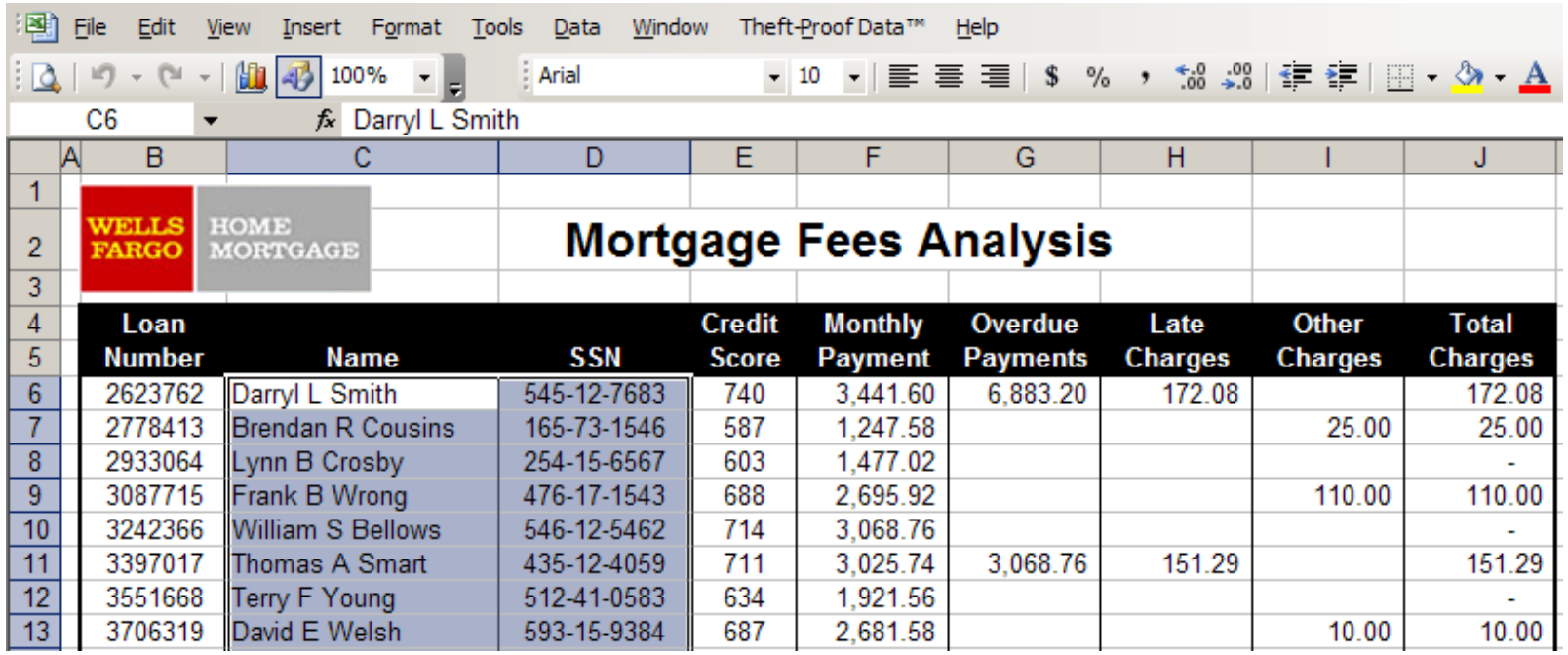
The columns were highlighted.



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3706319	David E Welsh	593-15-9384	687	2,681.58			10.00	10.00

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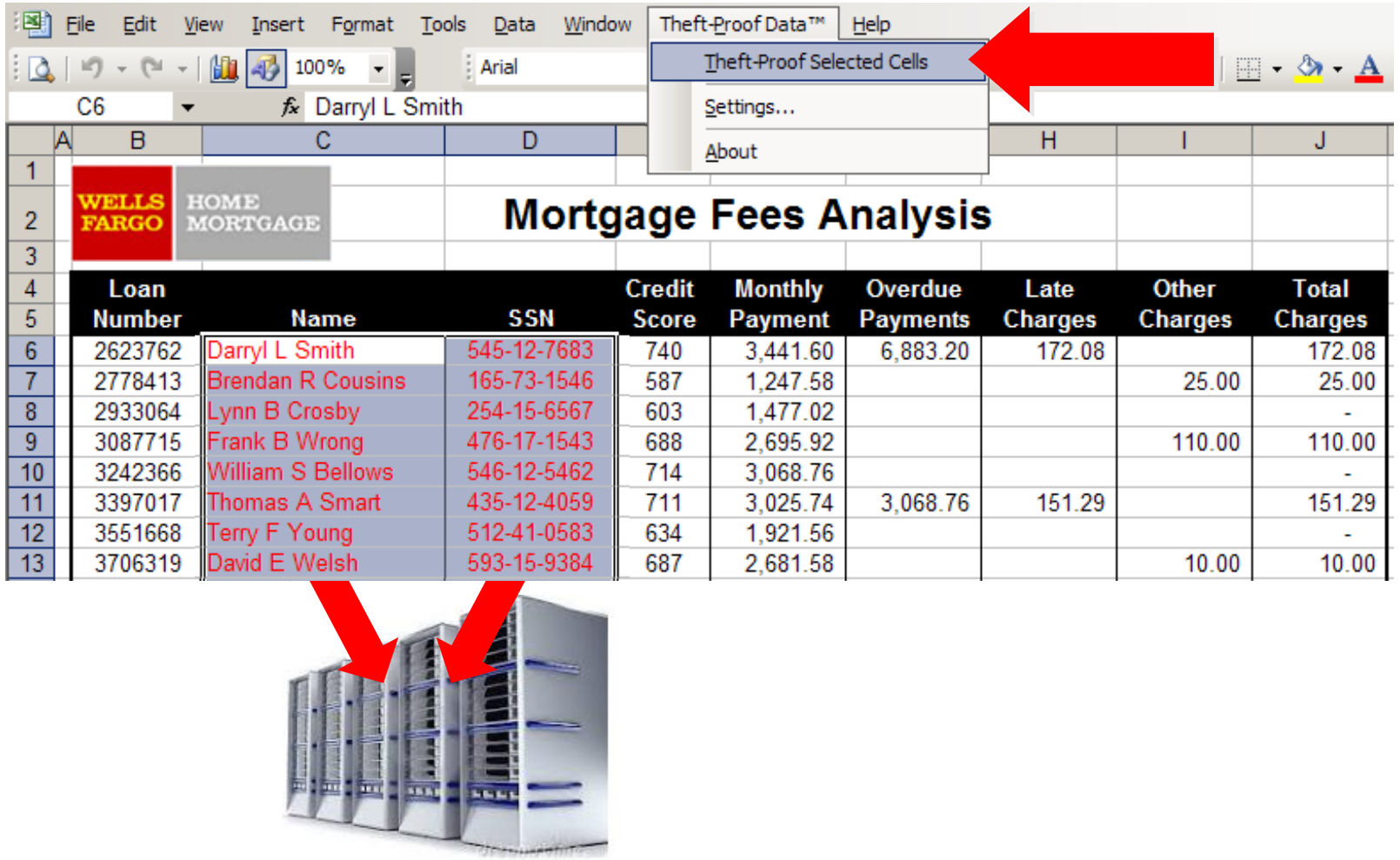
Excel for financial services

A drop-down menu instructed the plug-in to move the cells to the Vault.
The plug-in then displayed the cells in a different color.



Loan Number	Name	SSN	Credit Score	Monthly Payment	Overdue Payments	Late Charges	Other Charges	Total Charges
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2778413	Brendan R Cousins	165-73-1546	587	1,247.58			25.00	25.00
2933064	Lynn B Crosby	254-15-6567	603	1,477.02				-
3087715	Frank B Wrong	476-17-1543	688	2,695.92			110.00	110.00
3242366	William S Bellows	546-12-5462	714	3,068.76				-
3397017	Thomas A Smart	435-12-4059	711	3,025.74	3,068.76	151.29		151.29
3551668	Terry F Young	512-41-0583	634	1,921.56				-
3706319	David E Welsh	593-15-9384	687	2,681.58			10.00	10.00

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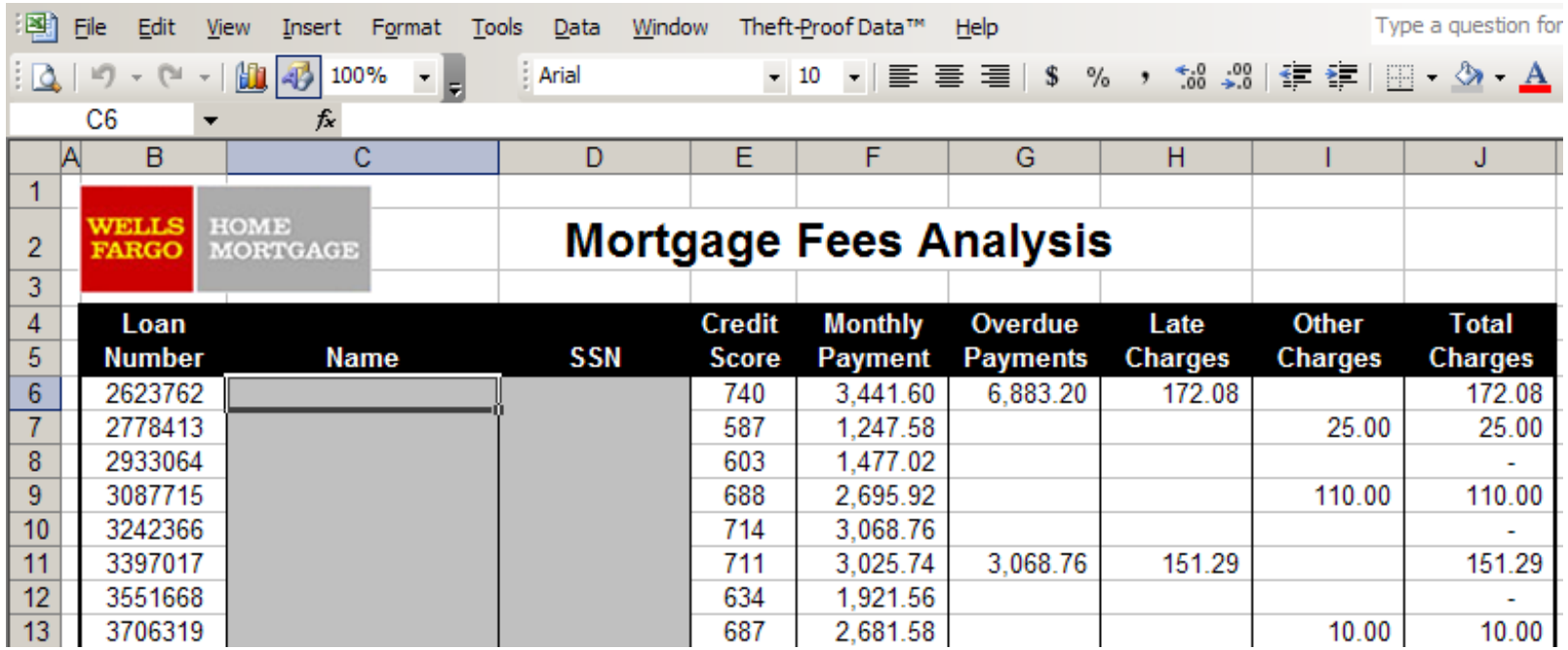
Excel for financial services

But users who did not authenticate and have permission saw nothing.



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3551668			634	1,921.56				-
3706319			687	2,681.58			10.00	10.00

Very important for CCPA control!!

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U.S. 7,937,579

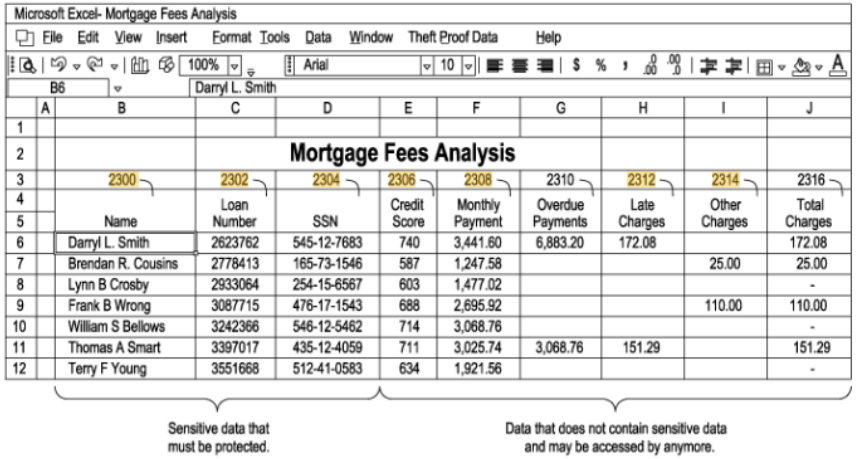

FIG. 23

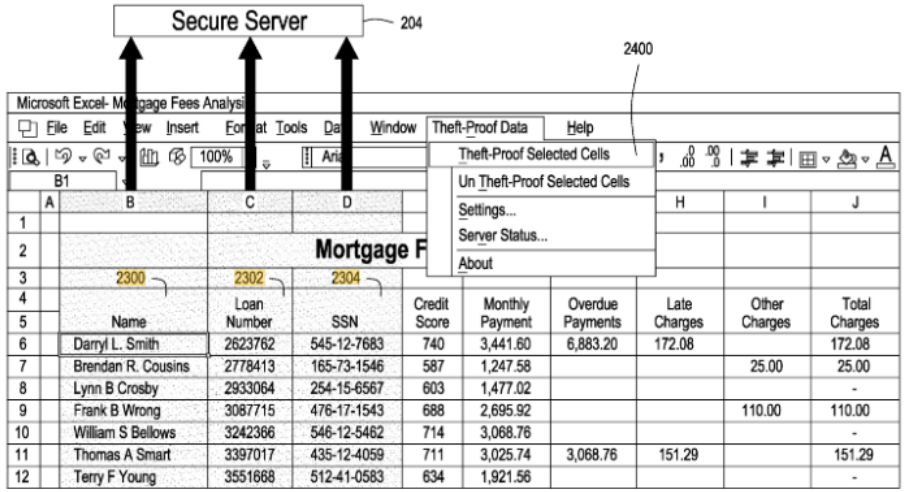

FIG. 24A

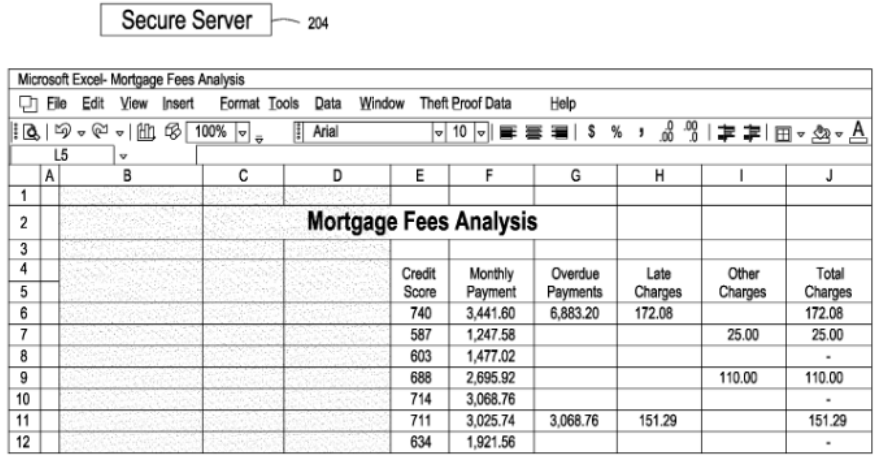

FIG. 24B

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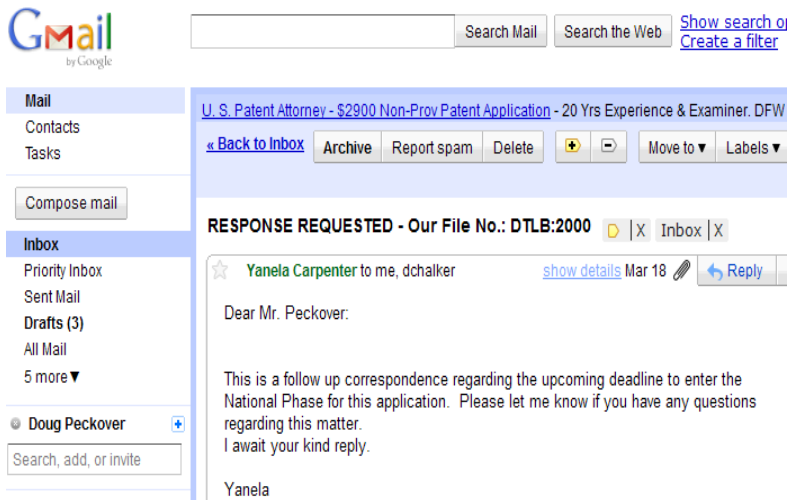
Another example: Cloud-based apps



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Databases (borrower data, HR records)

- This is **column-level** control for data breach-safe, ransomware-safe, quantum computer-safe, and GDPR/CCPA-safe at the table column level (although individual fields in a record can still be processed differently).
- This can be controlled in the app (using Kloke APIs) or within the database.

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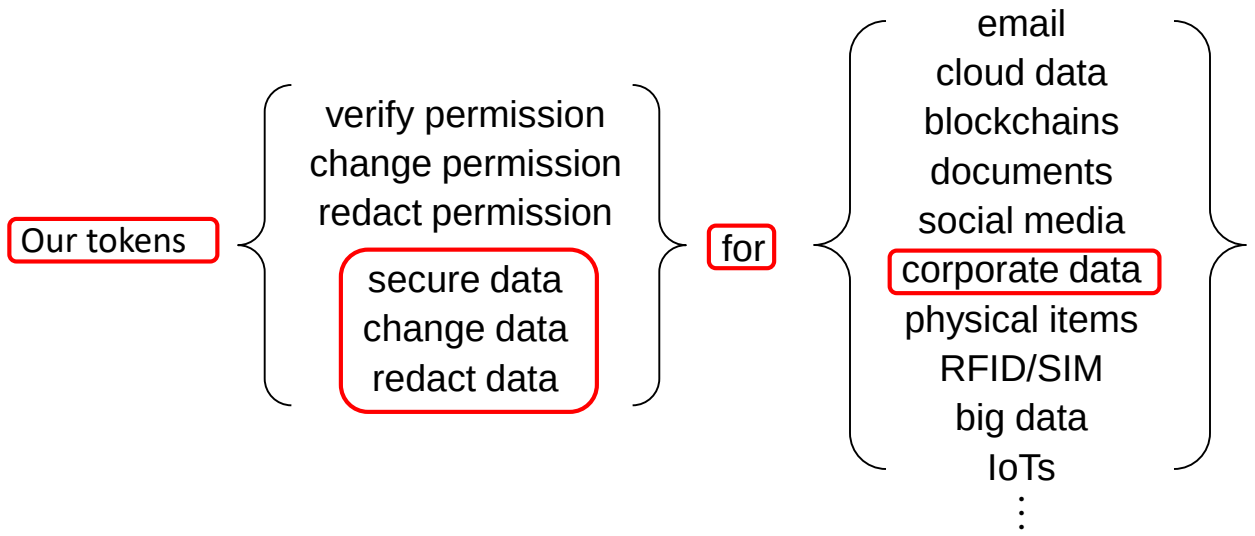
Corporate databases

This use case has token security maintaining medical data in an Oracle database. Selected encrypted fields were converted to token security in a progressive manner to avoid any interruption in daily operations. No programming changes were required.

This use case secures, changes, and redacts corporate data:



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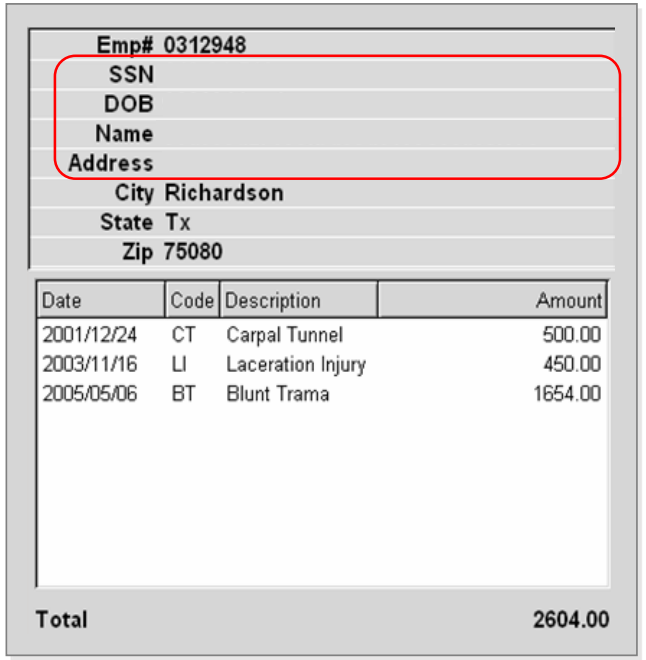
Corporate databases

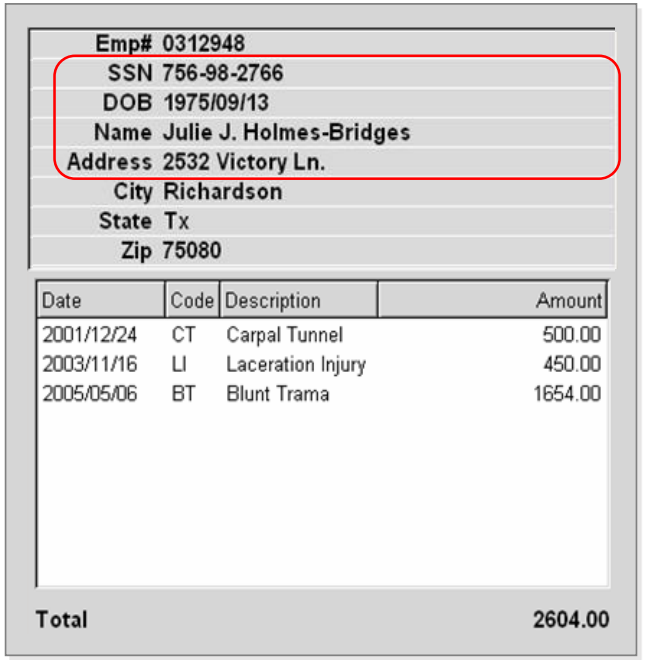
The screen on the left shows the content of the Oracle database after token security was added, so a breach does not put sensitive data at risk.



Emp#	0312948
SSN	
DOB	
Name	
Address	
City	Richardson
State	Tx
Zip	75080

Date	Code	Description	Amount
2001/12/24	CT	Carpal Tunnel	500.00
2003/11/16	LI	Laceration Injury	450.00
2005/05/06	BT	Blunt Trama	1654.00

Total 2604.00



Emp#	0312948
SSN	756-98-2766
DOB	1975/09/13
Name	Julie J. Holmes-Bridges
Address	2532 Victory Ln.
City	Richardson
State	Tx
Zip	75080

Date	Code	Description	Amount
2001/12/24	CT	Carpal Tunnel	500.00
2003/11/16	LI	Laceration Injury	450.00
2005/05/06	BT	Blunt Trama	1654.00

Total 2604.00

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Comments:

- Kloke is data-type and data-source agnostic.
- PII in non-government apps must treat this information differently (GDPR/CCPA).
- Kloke’s ransomware protection protects all files.

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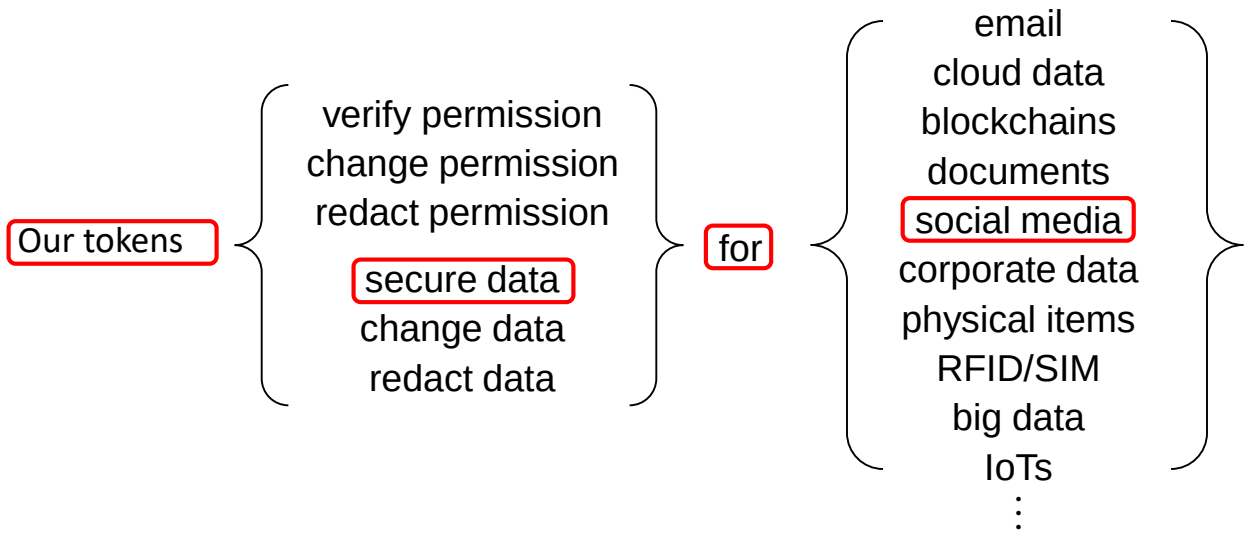
Another cloud example

The most common reason for people quitting Facebook is its lack of privacy, and 1 in 8 will pay $25/year for this privacy. The challenge is making data in third party servers private (Sophos Research calls this “technically impossible”).

This use case secures data in Facebook to make it private:



Our tokens

- verify permission
- change permission
- redact permission
- secure data
- change data
- redact data

for

- email
- cloud data
- blockchains
- documents
- social media
- corporate data
- physical items
- RFID/SIM
- big data
- IoTs
- ⋮

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Another cloud example

These screenshots are from a Facebook conversation between two friends, where Lynn made some derogatory comments about her boss.

Lynn used a browser plug-in to specify that this comment could only be seen by friends with permission.

A video of this use case can be seen here.

Note that this plug-in can be used to make the data entered into *any* Website private and secure.

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