

# A Case Study: Real Estate Wealth Network Data Breach

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## Abstract

In an ever-more regulated world, where companies devote a substantial portion of their budgets to cybersecurity protection, this case study examines a high-profile incident involving REWN, where a massive database of real estate ownership data was compromised. This incident raised questions about the risks associated with security breaches in real estate. The case study chronicles the events leading up to the breach, the responsible disclosure that followed, and REWN's swift action to secure the database. It highlights the critical role ethical security research plays in protecting data privacy and highlights the need for increased vigilance in protecting sensitive information in a rapidly evolving and regulated cyber environment.

## Introduction

According to vpnMentor, cybersecurity expert Jeremiah Fowler made an unsettling discovery: an unencrypted database belonging to Real Estate Wealth Network was left accessible on the internet for an indeterminate duration. Real Estate Wealth Network, created in 1993 and based in New York, is an online real estate education platform.

The exposed database, which totaled 1.16 terabytes and contained over 1.5 billion records, was meticulously organized into folders detailing property history, motivated sellers, bankruptcy, and other topics. Notably, the documents included sensitive information about property owners, investors, and sellers, as well as logging logs from April to October 2023 (Ford, 2024).

Fowler's investigations indicated that the exposed information stretched to millions of individuals, including celebrities and politicians including Kylie Jenner, Britney Spears, and Nancy Pelosi. The hack exposed street addresses, purchase data, mortgage information, and tax records, raising serious privacy and security issues.

Real Estate Wealth Network immediately blocked access to the database following Fowler's responsible disclosure and confirmed ownership. Uncertainty remains about the duration of the exposure and the possibility of unauthorized access, which requires an internal forensic audit.

Fowler's personal experience of discovering his real estate information in the exposed database highlights the immediate consequences for individuals. Although the researcher does not claim that there are any immediate risks, he does discuss the potential for real estate fraud and other types of fraud to take advantage of the exposed records.

This incident is a reminder of the dangers of unsecured databases and calls for increased cybersecurity measures in today's world.

## Factors that contributed to the breach

Unprotected Database. One primary factor that led to this data breach was the failure to adequately secure and protect the database. The database lacked proper access controls, encryption, or was inadvertently left exposed to the internet without authentication, it became vulnerable to unauthorized access.

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Lack of encryption. The lack of insufficient encryption of stored data made the data vulnerable to unauthorized access.

### ***Responses to the Breach***

**Immediate Database Securing.** Upon receiving the responsible disclosure from cybersecurity researcher Jeremiah Fowler, REWN took immediate action to secure the exposed database from public access. This swift response is crucial in preventing further unauthorized access and potential misuse of sensitive information (Fowler, 2023).

**Acknowledgment and Gratitude.** A representative of REWN admitted the breach, thanking the researcher for notifying them about the security vulnerability. The importance of cooperation with external security researchers in the identification and mitigation of potential threats is highlighted by this acknowledgement.

**Confirmation of Ownership.** The ownership of the disclosed database has been verified by REWN, indicating transparency and responsibility. The confirmation of ownership is a crucial step in the breach response process, which also helps to establish an accurate communication channel with the affected organization and researchers (Fowler, 2023).

**Potential Internal Forensic Audit.** The article suggests that to determine the extent of a breach, an Internal Forensic Audit should be carried out. The commitment to full investigation of the incident, identification of any unauthorized access or data extraction and assessment of the overall impact of a breach is an important step in that direction.

### ***Problems caused by the breach.***

**Privacy.** Exposure of personal data, such as names, addresses, telephone numbers and so on, presents significant privacy concerns. A breach of privacy may result in possible identity theft or unauthorized use of personal information by individuals who are subject to the breach.

**Misuse of Real Estate Data.** This breach involves a large volume of real estate data, e.g. property history, tax information and much more. This information could be misused for fraudulent activities, including property and mortgage fraud, as criminals may exploit the exposed data for financial gain.

**Celebrities and Public Figures at Risk.** The data breach involves celebrities and politicians who are vulnerable to threats like stalking, harassment, or invasion of privacy (Baram, 2024). The risks to them are increased by the exposure of their home addresses and other intimate details.

**Potential for Social Engineering Attacks.** Cyber criminals might exploit a breach of data to engage in Social Engineering attacks, manipulate individuals by exploiting the leaked information for their own benefit and gain confidence or obtain additional confidential content.

**Reputational Damage to REWN.** REWN's reputation could be damaged by the data breach. Trust in an organization's ability to protect sensitive information can be lost by customers, subscribers, and the public. Long-term damage to reputation can result from negative publicity.

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Figure 1: This screenshot shows the query results and alleged property ownership details of member of the US congress Nancy Pelosi, the world’s richest man Elon Musk, actor Mark Wahlberg, former president Donald Trump, and comedian Zach Galifianakis

### Conclusion

The data breach involving Real Estate Wealth Network (REWN) underscores the critical importance of robust cybersecurity practices in safeguarding sensitive information. The exposure of a vast amount of real estate data, including personal details of individuals, poses significant risks to privacy, security, and trust. The problems caused by the breach, from privacy concerns and potential security risks for individuals to the reputational damage and legal consequences for REWN, highlight the far-reaching impact of such incidents.

The swift response of REWN in securing the exposed database and acknowledging the breach is commendable. The potential consideration of an internal forensic audit demonstrates a commitment to thoroughly investigating the incident and understanding the extent of the breach. However, the lingering uncertainty regarding the duration of the exposure and the possibility of unauthorized access necessitate ongoing vigilance.

As technology continues to advance, organizations must prioritize cybersecurity measures, implement robust access controls, and employ encryption to mitigate the risk of data breaches. Transparency, accountability, and proactive response strategies are crucial elements in managing the aftermath of a breach and rebuilding trust with affected individuals and the wider community.

This incident serves as a stark reminder for both organizations and individuals about the importance of data protection in an increasingly interconnected digital landscape. It calls for continuous efforts to strengthen cybersecurity practices, enact stringent regulatory frameworks, and foster a culture of responsibility and diligence in handling sensitive information. Only through concerted actions can the risks associated with data breaches be minimized, and the digital ecosystem made more resilient against evolving cybersecurity threats.

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