## **Pwned Passwords**

Pwned Passwords are hundreds of millions of real world passwords exposed in data breaches. This exposure makes them unsuitable for ongoing use as they're at much greater risk of being used to take over other accounts. They're searchable online below as well as being downloadable for use in other online system. **Do not send any password you actively use to a third-party service - even this one!** 

password pwned?

#### Password reuse and credential stuffing

Password reuse is normal. It's extremely risky, but it's so common because it's easy and people aren't aware of the potential impact. Attacks such as <u>credential stuffing (https://www.troyhunt.com/password-reuse-credential-stuffing-and-another-1-billion-records-in-have-i-been-pwned/)</u> take advantage of reused credentials by automating login attempts against systems using known emails and password pairs.

# NIST's guidance: check passwords against those obtained from previous data breaches

The Pwned Passwords service was created after NIST released guidance specifically recommending that user-provided passwords be checked against existing data breaches (https://www.nist.gov/itl/tig/special-publication-800-63-3). The rationale for this advice and suggestions for how applications may leverage this data is described in detail in the blog post titled Introducing 306 Million Freely Downloadable Pwned Passwords (https://www.troyhunt.com/introducing-306-million-freely-downloadable-pwned-passwords/).

### Downloading the Pwned Passwords list

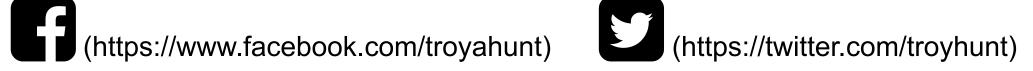
The entire set of passwords is downloadable for free below with each password being represented as a SHA1 hash to protect the original value (some passwords contain personally identifiable information). The list may be integrated into other systems and used to verify whether a password has previously appeared in a data breach after which a system may warn the user or even block the password outright. For suggestions on integration practices, read the Pwned Passwords launch blog post (https://www.troyhunt.com/introducing-306-million-freely-downloadable-pwned-passwords/) for more information.

	File	Date	Size	Description	SHA1 hash of 7-Zip
download (https://downloads.pwnedpasswords.com/passwords/pwned-passwords-1.0.txt.7z)  torrent (https://downloads.pwnedpasswords.com/passwords/pwned-passwords-1.0.txt.7z.torrent)	Version 1	3 Aug 2017	5.3GB	The original 306m hashes provided at the release of the service	90d57d16a2dfe00de
download (https://downloads.pwnedpasswords.com/passwords/pwned-passwords-update-1.txt.7z)  torrent (https://downloads.pwnedpasswords.com/passwords/pwned-passwords-update-1.txt.7z.torrent)	Update 1	4 Aug 2017	250MB	Additional 14m hashes with varying cases not originally included in the initial processing	00fc585efad08a4b6
download (https://downloads.pwnedpasswords.com/passwords/pwned-passwords-update-2.txt.7z)	Update 2	5 Aug 2017	7.6MB	Additional 400k hashes as passwords over 40 chars were truncated in earlier processing	20318090278bbd19

The bandwidth costs of distributing this content from a hosted service is significant when downloaded extensively. Cloudflare (https://www.cloudflare.com/) kindly offered to support this initiative by aggressively caching the file at their edge nodes over and beyond what would normally be available. Their support in making this data available to help organisations protect their customers is most appreciated.



### A troyhunt.com project (https://www.troyhunt.com)







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