

Prime Passphrase Protection: Client Advisory

Your password is your first line of defence against an attacking Cyber Criminal. That's why it's important to make sure your passwords are as strong as they can be. A passphrase has the same concept as a password, however, there are multiple benefits to using a longer yet still easy to remember phrase instead of a singular word.

The brute force attack method is commonly used by Cyber Criminals which is a trial and error-based method of guessing passwords. Short passwords are easy to crack, whilst longer passwords or passphrases increase the amount of time it takes to find the correct combination. You can see in the table below that using this method, guessing a simple passphrase such as 'I like pineapple on my pizza!' would take longer than a year and be very costly. Even using dictionary attack, which is a more targeted form of brute force attack and uses words in a dictionary or previously used passwords often from lists obtained from past security breaches, it would take more than 40 days to guess a simple passphrase. If the criminals don't have almost instant success, they will move on to try to guess someone else's password. Using spaces increases the complexity of a passphrase and special characters are a bonus too.



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| PASSWORD/ PASSPHRASE | TIME TO CRACK | | EASY TO REMEMBER | COMMENTS |
|--|--|--|-------------------------|---|
| | Brute Force Attack | Dictionary Attack | | |
| password123 | Instantly Less than AU\$0.01 | Instantly Less than AU\$0.01 | Very Easy (too easy) | One of the most commonly used passwords on the planet. |
| Spaghetti95! | 48 hours AU\$587.50 | Less than half an hour AU\$6.10 | Easy | Some complexity in the most common areas, and very short length. Easy to remember, but easy to crack |
| 5paghetti!95 | 24 hours AU\$293.70 | Less than 1 hour AU\$12.20 | Somewhat Easy | Not much more complexity than above with character substitution, and still short length. Easy to remember, but easy to crack. |
| A&d8J+! | 2.5 hours AU\$30.60 | 2.5 hours AU\$30.60 | Very Difficult | Mildly complex, but shorter than the above passwords. Hard to remember, easy to crack (against BFA). |
| I don't like pineapple on my pizza! | More than 1 Year More than AU\$107,222.40 | More than 40 days More than AU\$11,750.40 | Easy | Excellent character length (35 characters). Complexity is naturally high given the apostrophe, exclamation mark and use of spaces. Very easy to remember, and very difficult to crack. |

www.cyber.gov.au

Using strong passphrases as your password, along with enabling Multi-Factor Authentication will make it difficult for Cyber Criminals to access your network and information and they are more likely to be deterred from trying.



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