



Passwords

Passwords are today becoming more and more important, yet at the same time a real pain due to the quantity of them we need to remember! Everything needs to have a password today in order to be secure, be it your PC user login, your online banking login, your email account or even your mobile phone. The trouble is, that at some point or other, most of us will forget a particular password, either because we seldom use it, or because there are just too many to remember. As a result, many of us use either the same password for everything, or we use a variety of dead easy to remember passwords, neither of which is recommended.

Below are recommendations for creating good passwords, though don't go overboard with a 15 character password on your computer login which you will have forgotten by tomorrow! However, never leave it blank either.

There are many tips on the internet for creating good passwords, in general:

- Don't use just letters or just numbers.
- Don't use the names of husband/wife, children, girlfriends/boyfriends or pets.
- Don't use a phone number, a postcode or a date of birth – especially your own.
- Don't use the same word as your computer log-in.
- Don't use key sequences such as abcde, 12345, qwerty.
- Don't use any dictionary word.

But

- Do use at least 8 characters, though 14 or more is best.
- Do mix upper and lower case characters.
- Do use special characters such %, &, \$, etc.
- Do check the caps lock key is not pressed when you set your password!
- Choose a password you'll remember.

Examples of the some of the worst passwords are:

password, drowssap, admin, 123456, letmein, password1, your name, blink182.

To check how strong your password is, Microsoft has a password checker on its website:

<http://www.microsoft.com/protect/yourself/password/checker.mspix>

Once you have decided on your password, it is best to never write it down, and to change it 2-3 times a year! I know, this is getting a little tricky now and the chances are you are going to forget it. On top of that you should not use the same password for everything!

Is all this necessary? Unfortunately yes. Below is a brief description of how passwords are compromised (simplified version), described by an ex-hacker on the internet.

If a hacker wants to get at your bank account, he won't attack the bank's high level of security directly, but aim for something with much lower security, such as your favourite forum or you favourite online shop, and use a brut force attack (hacker software that blasts random words at a user's login) to hack user passwords. Once they have these, and trace emails back to your computer, they can determine your bank from the cookies sitting in your browser cache, and if you have used the same password It is not quite as simple as that, but not so difficult either.

How long does this take? Well, with a reasonable residential ADSL line, good consumer PC and the right hacking software (unfortunately easy to find on the internet) here's how long it takes to hack passwords composed of all possible keys on the keyboard (including upper and lower case):

	All keys	Just lower case
3 characters	0.86 seconds	0.02 seconds
4 characters	1.36 minutes	0.05 seconds
5 characters	2.15 hours	11.9 seconds
6 characters	8.51 days	5.15 minutes
7 characters	2.21 years	2.23 hours
8 characters	2.10 centuries	2.42 days
10 characters	1899 millennia	4.48 years.

He then adds that if you used a powerful computer, such as Google's computer, you could divide those times by 1,000. The moral of this is to use both uppercase and lowercase keys in your passwords!

One final point on passwords. Many people overlook the importance of their email password on the assumption that they don't get sent anything important by email. Hackers are quite keen on compromising these passwords, as they will then attempt to

login to your online banking account and click the “Forgotten Password” button and get it emailed to them. Again, it’s not necessarily that simple, but the point is that all passwords are important.

So, I’m not trying to get you all running scared about security, but there are plenty of hackers out there making the most of poor passwords, so just have a think about your passwords and decide whether its time to change them and improve them.

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