

Password Managers

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- This will be posted on the OMUG Website
- <http://ocalamug.org/omugwp/technical-resources/notes/>

“Through 20 years of effort, we’ve successfully trained everyone to use passwords that are hard for humans to remember, but easy for computers to guess.” source: <http://xkcd.com/936/>

Passwords

- Passwords are a fact of life.
- They are here to stay - At least until we get biometrics.
- Don’t fight it Accept it, and find a way to live with it.

Password Management

- Not a magic bullet!
- Password Managers are only as good as the stuff we put in them.
- It takes time, requires diligence, and most of all patience.

Apps

1Password	\$50 - single	\$70 - family	\$18 - mobile
	25% OMUG discount		
LastPass	Free - Mac	\$12/yr for mobile devices	
DashLane	Free - 1 device	\$30/yr for all devices + backup	

Tips

- Only use one password manager
- Keep the PM up-to-date - delete old entries
- Use browser extensions
- Keep recovery email addresses up-to-date
- Don't forget your master password

Apple ID Mess

App store	davistech	password-1
iTunes	davistech	password-1
Hardware	pdavis@ztechzone .net	password-2
iCloud	pdavis42@me .com	password-3
	pdavis42@icloud .com	password-3
	alias1@me .com	password-3
	alias2@me .com	password-3
Apple Sales web		password-4

OS X Keychain

- All passwords are stored in the Mac's keychain in encrypted form
- Use keychain access app to view
- Requires your Mac login password
- Can be stored in Dropbox folder

iCloud Keychain

- Requires OS X 10.9 & iOS 7.0.3 or later
- Syncs website usernames/passwords, credit card info, Mail, Contacts, Calendar, Messages

- Only works w/ Safari for websites
- Works with a single Apple ID (iCloud ID)
- [How to use iCloud Keychain: The ultimate guide](#)

Browser Storage

- All browsers are able to store on-line passwords. – But –
- Beware of potential problems when you change your password
- Can conflict with your Password Manager

Password Tips

- Create pass phrases that you can remember
- Use PM password generators
- Use Keychain password generator
- Don't use real answers for your recovery Q&A
 - Mother's maiden name = Smith (bad)
 - Mother's maiden name = hotrodder (good)

Password Entropy

- Password Strength meters are often flawed
- Entropy (related to cracking difficulty) is better
- Assume 1000 guesses per second
 - 28 bits entropy = 2^{28} seconds/1000 = 3 days to crack
 - 44 bits entropy = 2^{44} seconds/1000 = 550 years to crack
- [Dropbox Tech Blog: realistic password strength estimation](#)
- [Test your password](#)

qwER43@!	3 hours	entropy=26
Tr0ub4dour&3	22 hours	entropy=30
correcthorsebatterystaple	65 years	entropy=45

Password Entropy

password	time to crack	entropy
abcdefg	instant	4
1234567	instant	4
ab-cd-ef-g	centuries	55

Password Entropy

idiot	0.05 sec	10
an idiot	7 minutes	23
an id iot	7 months	38
I am an idiot	52 years	45
I am such an idiot	centuries	60
I am \$uch an idiot	centuries	74
l am \$uch an ld10t	enturies	61
I'll bet you are an idiot too	centuries	84

Password Entropy

blob100	13 minutes	24
blob-100	15 hours	30
bl ob 100	centuries	47
bl-ob-100	centuries	47
bl-OB-100	centuries	49

Workflow

- Make a list of all your sites and their passwords - I use an encrypted spreadsheet
- Add to your password manager - some PMs let you import from a spreadsheet
- Remove duplicates
- Test your passwords