Study of Administrator password policy costs Survey 5

Response ID	Completion date	
634211-634202-66090277	7 Oct 2020, 17:52 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is submitted. I understand that after that point, as the survey is anonymous, it will not be possible to identify and remove the data.	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the information sheet.	
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here:	
1.5.a		Yes

2	I consent to participate in this survey:	Yes

3	Password files should be encrypted	
3.1	Increased help desk/user support time	
3.1.a	Severity of Cost	Doesn't apply
3.1.b	Frequency Cost is Experienced	N/A
3.2	User education required	
3.2.a	Severity of Cost	Doesn't apply
3.2.b	Frequency Cost is Experienced	N/A
3.3	Organization needs extra resources	
3.3.a	Severity of Cost	Doesn't apply
3.3.b	Frequency Cost is Experienced	N/A

3.4	Takes organization time to implement	
3.4.a	Severity of Cost	Doesn't apply
3.4.b	Frequency Cost is Experienced	N/A
3.5	Increases the organization's computing power needed	
3.5.a	Severity of Cost	Doesn't apply
3.5.b	Frequency Cost is Experienced	N/A
3.a	Do you approve of this advice?	Yes
3.b	Comments	

4	Historical passwords should be stored to prevent password reuse	
4.1	Increased help desk/user support time	
4.1.a	Severity of Cost	Doesn't apply
4.1.b	Frequency Cost is Experienced	N/A
4.2	User education required	
4.2.a	Severity of Cost	Minor
4.2.b	Frequency Cost is Experienced	Once off
4.3	Organization needs extra resources	
4.3.a	Severity of Cost	Doesn't apply
4.3.b	Frequency Cost is Experienced	N/A
4.4	Takes organization time to implement	
4.4.a	Severity of Cost	Doesn't apply
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the organization's computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Yes
4.b	Comments	

5	All default passwords should be changed	
5.1	Increased help desk/user support time	
5.1.a	Severity of Cost	Minor
5.1.b	Frequency Cost is Experienced	Once off
5.2	User education required	

5.2.a	Severity of Cost	Minor
5.2.b	Frequency Cost is Experienced	Once off
5.3	Organization needs extra resources	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Takes organization time to implement	
5.4.a	Severity of Cost	Minor
5.4.b	Frequency Cost is Experienced	Once off
5.5	Increases the organization's computing power needed	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	

6	Technical Defenses or Controls should be implemented	
6.1	Increased help desk/user support time	
6.1.a	Severity of Cost	Doesn't apply
6.1.b	Frequency Cost is Experienced	N/A
6.2	User education required	
6.2.a	Severity of Cost	Doesn't apply
6.2.b	Frequency Cost is Experienced	N/A
6.3	Organization needs extra resources	
6.3.a	Severity of Cost	Minor
6.3.b	Frequency Cost is Experienced	Periodic
6.4	Takes organization time to implement	
6.4.a	Severity of Cost	Minor
6.4.b	Frequency Cost is Experienced	Periodic
6.5	Increases the organization's computing power needed	
6.5.a	Severity of Cost	Minor
6.5.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Yes
6.b	Comments	

7	Composition rules should be enforced for passwords (e.g. must have letters, numbers and a special character)	
7.1	Increased help desk/user support time	
7.1.a	Severity of Cost	Doesn't apply
7.1.b	Frequency Cost is Experienced	N/A
7.2	User education required	
7.2.a	Severity of Cost	Minor
7.2.b	Frequency Cost is Experienced	Once off
7.3	Organization needs extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Takes organization time to implement	
7.4.a	Severity of Cost	Doesn't apply
7.4.b	Frequency Cost is Experienced	N/A
7.5	Increases the organization's computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Neutral
7.b	Comments	In certain circumstances. Passphrases with sufficient additional complexity to increase entropy are a better idea than passwords are difficult to remember but easy to brute force.

8	Length restrictions for passwords should be enforced (e.g. password must be at least 8 characters)	
8.1	Increased help desk/user support time	
8.1.a	Severity of Cost	Doesn't apply
8.1.b	Frequency Cost is Experienced	N/A
8.2	User education required	
8.2.a	Severity of Cost	Minor
8.2.b	Frequency Cost is Experienced	Once off
8.3	Organization needs extra resources	
8.3.a	Severity of Cost	Doesn't apply
8.3.b	Frequency Cost is Experienced	N/A

8.4	Takes organization time to implement	
8.4.a	Severity of Cost	Doesn't apply
8.4.b	Frequency Cost is Experienced	N/A
8.5	Increases the organization's computing power needed	
8.5.a	Severity of Cost	Doesn't apply
8.5.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	Yes
8.b	Comments	Passphrases make it easier for users to generate entropy, with some special characters, while still remembering their key is a better option than long string of gibberish that may lead to other security compromises and user frustration.

9	When logging in, users should not use the "remember me" option	
9.1	Increased help desk/user support time	
9.1.a	Severity of Cost	Doesn't apply
9.1.b	Frequency Cost is Experienced	N/A
9.2	User education required	
9.2.a	Severity of Cost	Minor
9.2.b	Frequency Cost is Experienced	Once off
9.3	Organization needs extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Takes organization time to implement	
9.4.a	Severity of Cost	Minor
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the organization's computing power needed	
9.5.a	Severity of Cost	Minor
9.5.b	Frequency Cost is Experienced	Once off
9.a	Do you approve of this advice?	Neutral
9.b	Comments	Assuming this past the primary device login stage

10	A user should never send their password by email	
10.1	Increased help desk/user support time	
10.1.a	Severity of Cost	Doesn't apply
10.1.b	Frequency Cost is Experienced	N/A
10.2	User education required	
10.2.a	Severity of Cost	Minor
10.2.b	Frequency Cost is Experienced	Periodic
10.3	Organization needs extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Takes organization time to implement	
10.4.a	Severity of Cost	Doesn't apply
10.4.b	Frequency Cost is Experienced	N/A
10.5	Increases the organization's computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	Users are the week link - don't waste time trying to do anything but education here.

11	A user's email should be kept up-to-date and secure	
11.1	Increased help desk/user support time	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	User education required	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Organization needs extra resources	
11.3.a	Severity of Cost	Minor
11.3.b	Frequency Cost is Experienced	Periodic
11.4	Takes organization time to implement	
11.4.a	Severity of Cost	Minor

11.4.b	Frequency Cost is Experienced	Periodic
11.5	Increases the organization's computing power needed	
11.5.a	Severity of Cost	Minor
11.5.b	Frequency Cost is Experienced	Periodic
11.a	Do you approve of this advice?	Yes
11.b	Comments	

12	A user's software should be kept up to date	
12.1	Increased help desk/user support time	
12.1.a	Severity of Cost	Minor
12.1.b	Frequency Cost is Experienced	Periodic
12.2	User education required	
12.2.a	Severity of Cost	Minor
12.2.b	Frequency Cost is Experienced	Periodic
12.3	Organization needs extra resources	
12.3.a	Severity of Cost	Minor
12.3.b	Frequency Cost is Experienced	Periodic
12.4	Takes organization time to implement	
12.4.a	Severity of Cost	Major
12.4.b	Frequency Cost is Experienced	Periodic
12.5	Increases the organization's computing power needed	
12.5.a	Severity of Cost	Minor
12.5.b	Frequency Cost is Experienced	Periodic
12.a	Do you approve of this advice?	Yes
12.b	Comments	SSCM or equiv

13	Users should have to use some form of 2-factor authentication	
13.1	Increased help desk/user support time	
13.1.a	Severity of Cost	Doesn't apply
13.1.b	Frequency Cost is Experienced	N/A
13.2	User education required	
13.2.a	Severity of Cost	Doesn't apply
13.2.b	Frequency Cost is Experienced	N/A

13.3	Organization needs extra resources	
13.3.a	Severity of Cost	Doesn't apply
13.3.b	Frequency Cost is Experienced	N/A
13.4	Takes organization time to implement	
13.4.a	Severity of Cost	Doesn't apply
13.4.b	Frequency Cost is Experienced	N/A
13.5	Increases the organization's computing power needed	
13.5.a	Severity of Cost	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.a	Do you approve of this advice?	Neutral
13.b	Comments	2FA is sector dependent

14	If a user is using a password manager, long random passwords should be generated	
14.1	Increased help desk/user support time	
14.1.a	Severity of Cost	Doesn't apply
14.1.b	Frequency Cost is Experienced	N/A
14.2	User education required	
14.2.a	Severity of Cost	Minor
14.2.b	Frequency Cost is Experienced	Once off
14.3	Organization needs extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Takes organization time to implement	
14.4.a	Severity of Cost	Minor
14.4.b	Frequency Cost is Experienced	Periodic
14.5	Increases the organization's computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	Assumes that the user will always have access to their password manager. SaaS on off site work may limit this.

15	If physically distributed, a generated password should be sent in a sealed envelope	
15.1	Increased help desk/user support time	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	User education required	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A
15.3	Organization needs extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Takes organization time to implement	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the organization's computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	No
15.b	Comments	Just no. This remains a terrible idea.

Final Comments

16	Do you agree with the five cost categories that were used to denote organization/administration costs in this survey?	Somewhat
16.a	Are there any cost categories that you think should be added or removed?	User time - how much of a burden is placed on the user who just wants to login. People are the weakest link, if security is seen as a burden they will seek shortcuts.

17	This is the end of the survey do you have any final comments?	

Response ID	Completion date	
634211-634202-66098698	7 Oct 2020, 21:14 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is submitted. I understand that after that point, as the survey is anonymous, it will not be possible to identify and remove the data.	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the information sheet.	
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here:	
1.5.a		Yes

2	I consent to participate in this survey:	Yes

3	Password files should be encrypted	
3.1	Increased help desk/user support time	
3.1.a	Severity of Cost	Doesn't apply
3.1.b	Frequency Cost is Experienced	N/A
3.2	User education required	
3.2.a	Severity of Cost	Major
3.2.b	Frequency Cost is Experienced	Periodic
3.3	Organization needs extra resources	
3.3.a	Severity of Cost	Minor
3.3.b	Frequency Cost is Experienced	Periodic
3.4	Takes organization time to implement	
3.4.a	Severity of Cost	Major
3.4.b	Frequency Cost is Experienced	Periodic

3.5	Increases the organization's computing power needed	
3.5.a	Severity of Cost	Minor
3.5.b	Frequency Cost is Experienced	N/A
3.a	Do you approve of this advice?	Yes
3.b	Comments	most central password files should always be encrypted and done on creation. Users don't necessarily follow this procedure for their own files

4	Historical passwords should be stored to prevent password reuse	
4.1	Increased help desk/user support time	
4.1.a	Severity of Cost	Doesn't apply
4.1.b	Frequency Cost is Experienced	N/A
4.2	User education required	
4.2.a	Severity of Cost	Doesn't apply
4.2.b	Frequency Cost is Experienced	N/A
4.3	Organization needs extra resources	
4.3.a	Severity of Cost	Minor
4.3.b	Frequency Cost is Experienced	N/A
4.4	Takes organization time to implement	
4.4.a	Severity of Cost	Minor
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the organization's computing power needed	
4.5.a	Severity of Cost	Minor
4.5.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Yes
4.b	Comments	

5	All default passwords should be changed	
5.1	Increased help desk/user support time	
5.1.a	Severity of Cost	Major
5.1.b	Frequency Cost is Experienced	Periodic
5.2	User education required	

5.2.a	Severity of Cost	Major
5.2.b	Frequency Cost is Experienced	N/A
5.3	**Organization needs extra resources**	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	**Takes organization time to implement**	
5.4.a	Severity of Cost	Doesn't apply
5.4.b	Frequency Cost is Experienced	N/A
5.5	**Increases the organization's computing power needed**	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	this is done manually at times so it's more time consuming

6	**Technical Defenses or Controls should be implemented**	
6.1	**Increased help desk/user support time**	
6.1.a	Severity of Cost	Doesn't apply
6.1.b	Frequency Cost is Experienced	N/A
6.2	**User education required**	
6.2.a	Severity of Cost	Minor
6.2.b	Frequency Cost is Experienced	N/A
6.3	**Organization needs extra resources**	
6.3.a	Severity of Cost	Minor
6.3.b	Frequency Cost is Experienced	N/A
6.4	**Takes organization time to implement**	
6.4.a	Severity of Cost	Minor
6.4.b	Frequency Cost is Experienced	N/A
6.5	**Increases the organization's computing power needed**	
6.5.a	Severity of Cost	Minor
6.5.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Yes
6.b	Comments	

7	Composition rules should be enforced for passwords (e.g. must have letters, numbers and a special character)	
7.1	Increased help desk/user support time	
7.1.a	Severity of Cost	Doesn't apply
7.1.b	Frequency Cost is Experienced	N/A
7.2	User education required	
7.2.a	Severity of Cost	Positive
7.2.b	Frequency Cost is Experienced	N/A
7.3	Organization needs extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Takes organization time to implement	
7.4.a	Severity of Cost	Minor
7.4.b	Frequency Cost is Experienced	N/A
7.5	Increases the organization's computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Yes
7.b	Comments	

8	Length restrictions for passwords should be enforced (e.g. password must be at least 8 characters)	
8.1	Increased help desk/user support time	
8.1.a	Severity of Cost	Doesn't apply
8.1.b	Frequency Cost is Experienced	N/A
8.2	User education required	
8.2.a	Severity of Cost	Positive
8.2.b	Frequency Cost is Experienced	N/A
8.3	Organization needs extra resources	
8.3.a	Severity of Cost	Doesn't apply
8.3.b	Frequency Cost is Experienced	N/A
8.4	Takes organization time to implement	
8.4.a	Severity of Cost	Minor
8.4.b	Frequency Cost is Experienced	N/A

8.5	Increases the organization's computing power needed	
8.5.a	Severity of Cost	Doesn't apply
8.5.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	Yes
8.b	Comments	

9	When logging in, users should not use the "remember me" option	
9.1	Increased help desk/user support time	
9.1.a	Severity of Cost	Doesn't apply
9.1.b	Frequency Cost is Experienced	N/A
9.2	User education required	
9.2.a	Severity of Cost	Minor
9.2.b	Frequency Cost is Experienced	N/A
9.3	Organization needs extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Takes organization time to implement	
9.4.a	Severity of Cost	Doesn't apply
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the organization's computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Neutral
9.b	Comments	if the system is secure and only one user, its not minded

10	A user should never send their password by email	
10.1	Increased help desk/user support time	
10.1.a	Severity of Cost	Major
10.1.b	Frequency Cost is Experienced	Periodic
10.2	User education required	
10.2.a	Severity of Cost	Major
10.2.b	Frequency Cost is Experienced	Periodic

10.3	Organization needs extra resources	
10.3.a	Severity of Cost	Minor
10.3.b	Frequency Cost is Experienced	N/A
10.4	Takes organization time to implement	
10.4.a	Severity of Cost	Minor
10.4.b	Frequency Cost is Experienced	Don't know
10.5	Increases the organization's computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	the expense is in the afterward..

11	A user's email should be kept up-to-date and secure	
11.1	Increased help desk/user support time	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	User education required	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Organization needs extra resources	
11.3.a	Severity of Cost	Doesn't apply
11.3.b	Frequency Cost is Experienced	N/A
11.4	Takes organization time to implement	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the organization's computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	Neutral
11.b	Comments	not sure how to answer this!

12	A user's software should be kept up to date	
12.1	Increased help desk/user support time	

12.1.a	Severity of Cost	Minor
12.1.b	Frequency Cost is Experienced	Don't know
12.2	User education required	
12.2.a	Severity of Cost	Minor
12.2.b	Frequency Cost is Experienced	Periodic
12.3	Organization needs extra resources	
12.3.a	Severity of Cost	Minor
12.3.b	Frequency Cost is Experienced	Periodic
12.4	Takes organization time to implement	
12.4.a	Severity of Cost	Minor
12.4.b	Frequency Cost is Experienced	Periodic
12.5	Increases the organization's computing power needed	
12.5.a	Severity of Cost	Minor
12.5.b	Frequency Cost is Experienced	Once off
12.a	Do you approve of this advice?	Neutral
12.b	Comments	security updates yes.. other patches depends on use and effects

13	Users should have to use some form of 2-factor authentication	
13.1	Increased help desk/user support time	
13.1.a	Severity of Cost	Minor
13.1.b	Frequency Cost is Experienced	Periodic
13.2	User education required	
13.2.a	Severity of Cost	Major
13.2.b	Frequency Cost is Experienced	Periodic
13.3	Organization needs extra resources	
13.3.a	Severity of Cost	Doesn't apply
13.3.b	Frequency Cost is Experienced	N/A
13.4	Takes organization time to implement	
13.4.a	Severity of Cost	Major
13.4.b	Frequency Cost is Experienced	Once off
13.5	Increases the organization's computing power needed	

13.5.a	Severity of Cost	Minor
13.5.b	Frequency Cost is Experienced	Once off
13.a	Do you approve of this advice?	Yes
13.b	Comments	

14	If a user is using a password manager, long random passwords should be generated	
14.1	Increased help desk/user support time	
14.1.a	Severity of Cost	Doesn't apply
14.1.b	Frequency Cost is Experienced	N/A
14.2	User education required	
14.2.a	Severity of Cost	Minor
14.2.b	Frequency Cost is Experienced	N/A
14.3	Organization needs extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Takes organization time to implement	
14.4.a	Severity of Cost	Doesn't apply
14.4.b	Frequency Cost is Experienced	N/A
14.5	Increases the organization's computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	some logins tend to have limits on password length and characters used

15	If physically distributed, a generated password should be sent in a sealed envelope	
15.1	Increased help desk/user support time	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	User education required	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A

15.3	Organization needs extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Takes organization time to implement	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the organization's computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Neutral
15.b	Comments	we request in person with id

Final Comments

16	Do you agree with the five cost categories that were used to denote organization/administration costs in this survey?	Somewhat
16.a	Are there any cost categories that you think should be added or removed?	

17	This is the end of the survey do you have any final comments?	

Response ID	Completion date	
634211-634202-66532254	20 Oct 2020, 03:53 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is submitted. I understand that after that point, as the survey is anonymous, it will not be possible to identify and remove the data.	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the information sheet.	
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here:	
1.5.a		Yes

2	I consent to participate in this survey:	Yes

3	Password files should be encrypted	
3.1	Increased help desk/user support time	
3.1.a	Severity of Cost	Doesn't apply
3.1.b	Frequency Cost is Experienced	N/A
3.2	User education required	
3.2.a	Severity of Cost	Doesn't apply
3.2.b	Frequency Cost is Experienced	N/A
3.3	Organization needs extra resources	
3.3.a	Severity of Cost	Minor
3.3.b	Frequency Cost is Experienced	At Login
3.4	Takes organization time to implement	
3.4.a	Severity of Cost	Minor
3.4.b	Frequency Cost is Experienced	Once off

3.5	Increases the organization's computing power needed	
3.5.a	Severity of Cost	Minor
3.5.b	Frequency Cost is Experienced	At Login
3.a	Do you approve of this advice?	Yes
3.b	Comments	Unclear what "resources" might be

4	Historical passwords should be stored to prevent password reuse	
4.1	Increased help desk/user support time	
4.1.a	Severity of Cost	Minor
4.1.b	Frequency Cost is Experienced	Don't know
4.2	User education required	
4.2.a	Severity of Cost	Minor
4.2.b	Frequency Cost is Experienced	Once off
4.3	Organization needs extra resources	
4.3.a	Severity of Cost	Minor
4.3.b	Frequency Cost is Experienced	Don't know
4.4	Takes organization time to implement	
4.4.a	Severity of Cost	Minor
4.4.b	Frequency Cost is Experienced	Once off
4.5	Increases the organization's computing power needed	
4.5.a	Severity of Cost	Minor
4.5.b	Frequency Cost is Experienced	Don't know
4.a	Do you approve of this advice?	Neutral
4.b	Comments	Matters when passwords are changed which is occasionally rather than periodic

5	All default passwords should be changed	
5.1	Increased help desk/user support time	
5.1.a	Severity of Cost	Don't know
5.1.b	Frequency Cost is Experienced	Don't know
5.2	User education required	
5.2.a	Severity of Cost	Minor
5.2.b	Frequency Cost is Experienced	Don't know

5.3	Organization needs extra resources	
5.3.a	Severity of Cost	Minor
5.3.b	Frequency Cost is Experienced	Don't know
5.4	Takes organization time to implement	
5.4.a	Severity of Cost	Minor
5.4.b	Frequency Cost is Experienced	Don't know
5.5	Increases the organization's computing power needed	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	This is one of those things where users need continuous advice and support

6	Technical Defenses or Controls should be implemented	
6.1	Increased help desk/user support time	
6.1.a	Severity of Cost	Don't know
6.1.b	Frequency Cost is Experienced	Don't know
6.2	User education required	
6.2.a	Severity of Cost	Don't know
6.2.b	Frequency Cost is Experienced	Don't know
6.3	Organization needs extra resources	
6.3.a	Severity of Cost	Don't know
6.3.b	Frequency Cost is Experienced	Don't know
6.4	Takes organization time to implement	
6.4.a	Severity of Cost	Don't know
6.4.b	Frequency Cost is Experienced	Don't know
6.5	Increases the organization's computing power needed	
6.5.a	Severity of Cost	Don't know
6.5.b	Frequency Cost is Experienced	Don't know
6.a	Do you approve of this advice?	No
6.b	Comments	Not specific or meaningful enough to be useful advice

7	Composition rules should be enforced for passwords (e.g. must have letters, numbers and a special character)	
7.1	Increased help desk/user support time	
7.1.a	Severity of Cost	Minor
7.1.b	Frequency Cost is Experienced	Don't know
7.2	User education required	
7.2.a	Severity of Cost	Minor
7.2.b	Frequency Cost is Experienced	Periodic
7.3	Organization needs extra resources	
7.3.a	Severity of Cost	Don't know
7.3.b	Frequency Cost is Experienced	Don't know
7.4	Takes organization time to implement	
7.4.a	Severity of Cost	Minor
7.4.b	Frequency Cost is Experienced	Once off
7.5	Increases the organization's computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Neutral
7.b	Comments	See above re occasional password changes

8	Length restrictions for passwords should be enforced (e.g. password must be at least 8 characters)	
8.1	Increased help desk/user support time	
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Don't know
8.2	User education required	
8.2.a	Severity of Cost	Minor
8.2.b	Frequency Cost is Experienced	Once off
8.3	Organization needs extra resources	
8.3.a	Severity of Cost	Don't know
8.3.b	Frequency Cost is Experienced	Don't know
8.4	Takes organization time to implement	
8.4.a	Severity of Cost	Minor

8.4.b	Frequency Cost is Experienced	Once off
8.5	Increases the organization's computing power needed	
8.5.a	Severity of Cost	Doesn't apply
8.5.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	Yes
8.b	Comments	

9	When logging in, users should not use the "remember me" option	
9.1	Increased help desk/user support time	
9.1.a	Severity of Cost	Doesn't apply
9.1.b	Frequency Cost is Experienced	N/A
9.2	User education required	
9.2.a	Severity of Cost	Doesn't apply
9.2.b	Frequency Cost is Experienced	N/A
9.3	Organization needs extra resources	
9.3.a	Severity of Cost	Don't know
9.3.b	Frequency Cost is Experienced	Don't know
9.4	Takes organization time to implement	
9.4.a	Severity of Cost	Doesn't apply
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the organization's computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	No
9.b	Comments	Users should use a password manager

10	A user should never send their password by email	
10.1	Increased help desk/user support time	
10.1.a	Severity of Cost	Don't know
10.1.b	Frequency Cost is Experienced	Don't know
10.2	User education required	
10.2.a	Severity of Cost	Don't know

10.2.b	Frequency Cost is Experienced	Don't know
10.3	Organization needs extra resources	
10.3.a	Severity of Cost	Don't know
10.3.b	Frequency Cost is Experienced	Don't know
10.4	Takes organization time to implement	
10.4.a	Severity of Cost	Doesn't apply
10.4.b	Frequency Cost is Experienced	N/A
10.5	Increases the organization's computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

11	A user's email should be kept up-to-date and secure	
11.1	Increased help desk/user support time	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	User education required	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Organization needs extra resources	
11.3.a	Severity of Cost	Doesn't apply
11.3.b	Frequency Cost is Experienced	N/A
11.4	Takes organization time to implement	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the organization's computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	No
11.b	Comments	Not clear what this means

12	A user's software should be kept up to date	

12.1	Increased help desk/user support time	
12.1.a	Severity of Cost	Major
12.1.b	Frequency Cost is Experienced	Periodic
12.2	User education required	
12.2.a	Severity of Cost	Minor
12.2.b	Frequency Cost is Experienced	Periodic
12.3	Organization needs extra resources	
12.3.a	Severity of Cost	Don't know
12.3.b	Frequency Cost is Experienced	Don't know
12.4	Takes organization time to implement	
12.4.a	Severity of Cost	Major
12.4.b	Frequency Cost is Experienced	Periodic
12.5	Increases the organization's computing power needed	
12.5.a	Severity of Cost	Minor
12.5.b	Frequency Cost is Experienced	Periodic
12.a	Do you approve of this advice?	Yes
12.b	Comments	needs money and time - dunno if these count as "resources"

13	Users should have to use some form of 2-factor authentication	
13.1	Increased help desk/user support time	
13.1.a	Severity of Cost	Major
13.1.b	Frequency Cost is Experienced	Don't know
13.2	User education required	
13.2.a	Severity of Cost	Major
13.2.b	Frequency Cost is Experienced	Once off
13.3	Organization needs extra resources	
13.3.a	Severity of Cost	Don't know
13.3.b	Frequency Cost is Experienced	Don't know
13.4	Takes organization time to implement	
13.4.a	Severity of Cost	Major
13.4.b	Frequency Cost is Experienced	Once off
13.5	Increases the organization's computing power needed	

13.5.a	Severity of Cost	Minor
13.5.b	Frequency Cost is Experienced	At Login
13.a	Do you approve of this advice?	Neutral
13.b	Comments	

14	If a user is using a password manager, long random passwords should be generated	
14.1	Increased help desk/user support time	
14.1.a	Severity of Cost	Minor
14.1.b	Frequency Cost is Experienced	N/A
14.2	User education required	
14.2.a	Severity of Cost	Minor
14.2.b	Frequency Cost is Experienced	Once off
14.3	Organization needs extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Takes organization time to implement	
14.4.a	Severity of Cost	Doesn't apply
14.4.b	Frequency Cost is Experienced	N/A
14.5	Increases the organization's computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	

15	If physically distributed, a generated password should be sent in a sealed envelope	
15.1	Increased help desk/user support time	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	User education required	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A
15.3	Organization needs extra resources	
15.3.a	Severity of Cost	Don't know

15.3.b	Frequency Cost is Experienced	Don't know
15.4	Takes organization time to implement	
15.4.a	Severity of Cost	Major
15.4.b	Frequency Cost is Experienced	Periodic
15.5	Increases the organization's computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Yes
15.b	Comments	

Final Comments

16	Do you agree with the five cost categories that were used to denote organization/administration costs in this survey?	No
16.a	Are there any cost categories that you think should be added or removed?	"Resources" is not specific enough

17	This is the end of the survey do you have any final comments?	

Response ID	Completion date	
634211-634202-66532992	20 Oct 2020, 06:41 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is submitted. I understand that after that point, as the survey is anonymous, it will not be possible to identify and remove the data.	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the information sheet.	
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here:	
1.5.a		Yes

2	I consent to participate in this survey:	Yes

3	Password files should be encrypted	
3.1	Increased help desk/user support time	
3.1.a	Severity of Cost	Doesn't apply
3.1.b	Frequency Cost is Experienced	N/A
3.2	User education required	
3.2.a	Severity of Cost	Doesn't apply
3.2.b	Frequency Cost is Experienced	N/A
3.3	Organization needs extra resources	
3.3.a	Severity of Cost	Doesn't apply
3.3.b	Frequency Cost is Experienced	N/A
3.4	Takes organization time to implement	
3.4.a	Severity of Cost	Doesn't apply
3.4.b	Frequency Cost is Experienced	N/A

3.5	Increases the organization's computing power needed	
3.5.a	Severity of Cost	Minor
3.5.b	Frequency Cost is Experienced	At Login
3.a	Do you approve of this advice?	Yes
3.b	Comments	As this is already the default in every sensible system, I don't consider this to have any cost.

4	Historical passwords should be stored to prevent password reuse	
4.1	Increased help desk/user support time	
4.1.a	Severity of Cost	Doesn't apply
4.1.b	Frequency Cost is Experienced	N/A
4.2	User education required	
4.2.a	Severity of Cost	Minor
4.2.b	Frequency Cost is Experienced	Periodic
4.3	Organization needs extra resources	
4.3.a	Severity of Cost	Doesn't apply
4.3.b	Frequency Cost is Experienced	N/A
4.4	Takes organization time to implement	
4.4.a	Severity of Cost	Doesn't apply
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the organization's computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Yes
4.b	Comments	Hashes should be stored, not the actual passwords

5	All default passwords should be changed	
5.1	Increased help desk/user support time	
5.1.a	Severity of Cost	Doesn't apply
5.1.b	Frequency Cost is Experienced	N/A
5.2	User education required	

5.2.a	Severity of Cost	Doesn't apply
5.2.b	Frequency Cost is Experienced	N/A
5.3	Organization needs extra resources	
5.3.a	Severity of Cost	Minor
5.3.b	Frequency Cost is Experienced	Once off
5.4	Takes organization time to implement	
5.4.a	Severity of Cost	Minor
5.4.b	Frequency Cost is Experienced	Once off
5.5	Increases the organization's computing power needed	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	

6	Technical Defenses or Controls should be implemented	
6.1	Increased help desk/user support time	
6.1.a	Severity of Cost	Doesn't apply
6.1.b	Frequency Cost is Experienced	N/A
6.2	User education required	
6.2.a	Severity of Cost	Minor
6.2.b	Frequency Cost is Experienced	Once off
6.3	Organization needs extra resources	
6.3.a	Severity of Cost	Minor
6.3.b	Frequency Cost is Experienced	Once off
6.4	Takes organization time to implement	
6.4.a	Severity of Cost	Minor
6.4.b	Frequency Cost is Experienced	Once off
6.5	Increases the organization's computing power needed	
6.5.a	Severity of Cost	Minor
6.5.b	Frequency Cost is Experienced	At Login
6.a	Do you approve of this advice?	Yes
6.b	Comments	

7	Composition rules should be enforced for passwords (e.g. must have letters, numbers and a special character)	
7.1	Increased help desk/user support time	
7.1.a	Severity of Cost	Minor
7.1.b	Frequency Cost is Experienced	Periodic
7.2	User education required	
7.2.a	Severity of Cost	Major
7.2.b	Frequency Cost is Experienced	Periodic
7.3	Organization needs extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Takes organization time to implement	
7.4.a	Severity of Cost	Minor
7.4.b	Frequency Cost is Experienced	Once off
7.5	Increases the organization's computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Neutral
7.b	Comments	

8	Length restrictions for passwords should be enforced (e.g. password must be at least 8 characters)	
8.1	Increased help desk/user support time	
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Periodic
8.2	User education required	
8.2.a	Severity of Cost	Doesn't apply
8.2.b	Frequency Cost is Experienced	N/A
8.3	Organization needs extra resources	
8.3.a	Severity of Cost	Doesn't apply
8.3.b	Frequency Cost is Experienced	N/A
8.4	Takes organization time to implement	
8.4.a	Severity of Cost	Minor
8.4.b	Frequency Cost is Experienced	Once off

8.5	Increases the organization's computing power needed	
8.5.a	Severity of Cost	Doesn't apply
8.5.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	Yes
8.b	Comments	

9	When logging in, users should not use the "remember me" option	
9.1	Increased help desk/user support time	
9.1.a	Severity of Cost	Doesn't apply
9.1.b	Frequency Cost is Experienced	N/A
9.2	User education required	
9.2.a	Severity of Cost	Major
9.2.b	Frequency Cost is Experienced	Once off
9.3	Organization needs extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Takes organization time to implement	
9.4.a	Severity of Cost	Doesn't apply
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the organization's computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Neutral
9.b	Comments	

10	A user should never send their password by email	
10.1	Increased help desk/user support time	
10.1.a	Severity of Cost	Doesn't apply
10.1.b	Frequency Cost is Experienced	N/A
10.2	User education required	
10.2.a	Severity of Cost	Minor
10.2.b	Frequency Cost is Experienced	Once off

10.3	**Organization needs extra resources**	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	**Takes organization time to implement**	
10.4.a	Severity of Cost	Doesn't apply
10.4.b	Frequency Cost is Experienced	N/A
10.5	**Increases the organization's computing power needed**	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

11	**A user's email should be kept up-to-date and secure**	
11.1	**Increased help desk/user support time**	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	**User education required**	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	**Organization needs extra resources**	
11.3.a	Severity of Cost	Doesn't apply
11.3.b	Frequency Cost is Experienced	N/A
11.4	**Takes organization time to implement**	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	**Increases the organization's computing power needed**	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	Neutral
11.b	Comments	I don't understand this question

12	**A user's software should be kept up to date**	
12.1	**Increased help desk/user support time**	

12.1.a	Severity of Cost	Major
12.1.b	Frequency Cost is Experienced	Periodic
12.2	User education required	
12.2.a	Severity of Cost	Major
12.2.b	Frequency Cost is Experienced	Periodic
12.3	Organization needs extra resources	
12.3.a	Severity of Cost	Major
12.3.b	Frequency Cost is Experienced	Periodic
12.4	Takes organization time to implement	
12.4.a	Severity of Cost	Major
12.4.b	Frequency Cost is Experienced	Periodic
12.5	Increases the organization's computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.a	Do you approve of this advice?	Yes
12.b	Comments	

13	Users should have to use some form of 2-factor authentication	
13.1	Increased help desk/user support time	
13.1.a	Severity of Cost	Major
13.1.b	Frequency Cost is Experienced	At Login
13.2	User education required	
13.2.a	Severity of Cost	Major
13.2.b	Frequency Cost is Experienced	At Login
13.3	Organization needs extra resources	
13.3.a	Severity of Cost	Major
13.3.b	Frequency Cost is Experienced	At Login
13.4	Takes organization time to implement	
13.4.a	Severity of Cost	Major
13.4.b	Frequency Cost is Experienced	Once off
13.5	Increases the organization's computing power needed	
13.5.a	Severity of Cost	Minor
13.5.b	Frequency Cost is Experienced	At Login

13.a	Do you approve of this advice?	Yes
13.b	Comments	

14	If a user is using a password manager, long random passwords should be generated	
14.1	Increased help desk/user support time	
14.1.a	Severity of Cost	Minor
14.1.b	Frequency Cost is Experienced	Periodic
14.2	User education required	
14.2.a	Severity of Cost	Major
14.2.b	Frequency Cost is Experienced	Once off
14.3	Organization needs extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Takes organization time to implement	
14.4.a	Severity of Cost	Major
14.4.b	Frequency Cost is Experienced	Once off
14.5	Increases the organization's computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	

15	If physically distributed, a generated password should be sent in a sealed envelope	
15.1	Increased help desk/user support time	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	User education required	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A
15.3	Organization needs extra resources	
15.3.a	Severity of Cost	Major
15.3.b	Frequency Cost is Experienced	Periodic
15.4	Takes organization time to implement	

15.4.a	Severity of Cost	Major
15.4.b	Frequency Cost is Experienced	Periodic
15.5	Increases the organization's computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Yes
15.b	Comments	

Final Comments

16	Do you agree with the five cost categories that were used to denote organization/administration costs in this survey?	Yes
16.a	Are there any cost categories that you think should be added or removed?	

17	This is the end of the survey do you have any final comments?	

Response ID	Completion date	
634211-634202-66754804	24 Oct 2020, 13:55 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is submitted. I understand that after that point, as the survey is anonymous, it will not be possible to identify and remove the data.	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the information sheet.	
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here:	
1.5.a		Yes

2	I consent to participate in this survey:	Yes

3	Password files should be encrypted	
3.1	Increased help desk/user support time	
3.1.a	Severity of Cost	Positive
3.1.b	Frequency Cost is Experienced	Periodic
3.2	User education required	
3.2.a	Severity of Cost	Major
3.2.b	Frequency Cost is Experienced	Once off
3.3	Organization needs extra resources	
3.3.a	Severity of Cost	Don't know
3.3.b	Frequency Cost is Experienced	N/A
3.4	Takes organization time to implement	
3.4.a	Severity of Cost	Minor
3.4.b	Frequency Cost is Experienced	Once off

3.5	Increases the organization's computing power needed	
3.5.a	Severity of Cost	Doesn't apply
3.5.b	Frequency Cost is Experienced	N/A
3.a	Do you approve of this advice?	Yes
3.b	Comments	It's common practice to ensure password files are encrypted.. To me this is a no brainer

4	Historical passwords should be stored to prevent password reuse	
4.1	Increased help desk/user support time	
4.1.a	Severity of Cost	Positive
4.1.b	Frequency Cost is Experienced	At Login
4.2	User education required	
4.2.a	Severity of Cost	Major
4.2.b	Frequency Cost is Experienced	Once off
4.3	Organization needs extra resources	
4.3.a	Severity of Cost	Minor
4.3.b	Frequency Cost is Experienced	Don't know
4.4	Takes organization time to implement	
4.4.a	Severity of Cost	Minor
4.4.b	Frequency Cost is Experienced	Once off
4.5	Increases the organization's computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Yes
4.b	Comments	Storing used passwords is policy in the companys I've worked for but I can understand frustration from end users as there is only a finite amount of passwords one can remember

5	All default passwords should be changed	
5.1	Increased help desk/user support time	
5.1.a	Severity of Cost	Positive
5.1.b	Frequency Cost is Experienced	At Login

5.2	User education required	
5.2.a	Severity of Cost	Major
5.2.b	Frequency Cost is Experienced	Once off
5.3	Organization needs extra resources	
5.3.a	Severity of Cost	Major
5.3.b	Frequency Cost is Experienced	Once off
5.4	Takes organization time to implement	
5.4.a	Severity of Cost	Major
5.4.b	Frequency Cost is Experienced	Once off
5.5	Increases the organization's computing power needed	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	The amount of devices I've found on sites that have still using the default factory passwords is shocking

6	Technical Defenses or Controls should be implemented	
6.1	Increased help desk/user support time	
6.1.a	Severity of Cost	Doesn't apply
6.1.b	Frequency Cost is Experienced	N/A
6.2	User education required	
6.2.a	Severity of Cost	Doesn't apply
6.2.b	Frequency Cost is Experienced	N/A
6.3	Organization needs extra resources	
6.3.a	Severity of Cost	Major
6.3.b	Frequency Cost is Experienced	Once off
6.4	Takes organization time to implement	
6.4.a	Severity of Cost	Major
6.4.b	Frequency Cost is Experienced	Once off
6.5	Increases the organization's computing power needed	
6.5.a	Severity of Cost	Doesn't apply
6.5.b	Frequency Cost is Experienced	N/A

6.a	Do you approve of this advice?	Yes
6.b	Comments	The amount of company's that barely have edge firewalls protecting there company's in shocking and its relatively simple to implement

7	Composition rules should be enforced for passwords (e.g. must have letters, numbers and a special character)	
7.1	Increased help desk/user support time	
7.1.a	Severity of Cost	Doesn't apply
7.1.b	Frequency Cost is Experienced	N/A
7.2	User education required	
7.2.a	Severity of Cost	Major
7.2.b	Frequency Cost is Experienced	Once off
7.3	Organization needs extra resources	
7.3.a	Severity of Cost	Minor
7.3.b	Frequency Cost is Experienced	Once off
7.4	Takes organization time to implement	
7.4.a	Severity of Cost	Minor
7.4.b	Frequency Cost is Experienced	Once off
7.5	Increases the organization's computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Yes
7.b	Comments	As I've worked in major multi national company's this policy is the norm when it comes to compositiom rules

8	Length restrictions for passwords should be enforced (e.g. password must be at least 8 characters)	
8.1	Increased help desk/user support time	
8.1.a	Severity of Cost	Doesn't apply
8.1.b	Frequency Cost is Experienced	N/A
8.2	User education required	
8.2.a	Severity of Cost	Major

8.2.b	Frequency Cost is Experienced	Once off
8.3	Organization needs extra resources	
8.3.a	Severity of Cost	Minor
8.3.b	Frequency Cost is Experienced	Once off
8.4	Takes organization time to implement	
8.4.a	Severity of Cost	Minor
8.4.b	Frequency Cost is Experienced	Once off
8.5	Increases the organization's computing power needed	
8.5.a	Severity of Cost	Doesn't apply
8.5.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	
8.b	Comments	Again it hankers back to what we are setting up as a global multinational company who is probably a couple of years behind the leading edge when it comes to password rules

9	When logging in, users should not use the "remember me" option	
9.1	Increased help desk/user support time	
9.1.a	Severity of Cost	Doesn't apply
9.1.b	Frequency Cost is Experienced	N/A
9.2	User education required	
9.2.a	Severity of Cost	Positive
9.2.b	Frequency Cost is Experienced	Don't know
9.3	Organization needs extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Takes organization time to implement	
9.4.a	Severity of Cost	Doesn't apply
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the organization's computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Yes

9.b	Comments	

10	A user should never send their password by email	
10.1	Increased help desk/user support time	
10.1.a	Severity of Cost	Doesn't apply
10.1.b	Frequency Cost is Experienced	N/A
10.2	User education required	
10.2.a	Severity of Cost	Major
10.2.b	Frequency Cost is Experienced	Once off
10.3	Organization needs extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Takes organization time to implement	
10.4.a	Severity of Cost	Doesn't apply
10.4.b	Frequency Cost is Experienced	N/A
10.5	Increases the organization's computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	There needs to be a better method for sharing passwords with either onsite tech support or policy's in place to support

11	A user's email should be kept up-to-date and secure	
11.1	Increased help desk/user support time	
11.1.a	Severity of Cost	Minor
11.1.b	Frequency Cost is Experienced	Periodic
11.2	User education required	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Organization needs extra resources	
11.3.a	Severity of Cost	Doesn't apply
11.3.b	Frequency Cost is Experienced	N/A

11.4	Takes organization time to implement	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the organization's computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	Yes
11.b	Comments	Updates are key to a secure business

12	A user's software should be kept up to date	
12.1	Increased help desk/user support time	
12.1.a	Severity of Cost	Minor
12.1.b	Frequency Cost is Experienced	Periodic
12.2	User education required	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Organization needs extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Takes organization time to implement	
12.4.a	Severity of Cost	Doesn't apply
12.4.b	Frequency Cost is Experienced	N/A
12.5	Increases the organization's computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.a	Do you approve of this advice?	Yes
12.b	Comments	Software needs to ensure its updated and secure across all areas of company's

13	Users should have to use some form of 2-factor authentication	
13.1	Increased help desk/user support time	
13.1.a	Severity of Cost	Major

13.1.b	Frequency Cost is Experienced	Once off
13.2	User education required	
13.2.a	Severity of Cost	Major
13.2.b	Frequency Cost is Experienced	Once off
13.3	Organization needs extra resources	
13.3.a	Severity of Cost	Minor
13.3.b	Frequency Cost is Experienced	Once off
13.4	Takes organization time to implement	
13.4.a	Severity of Cost	Major
13.4.b	Frequency Cost is Experienced	Once off
13.5	Increases the organization's computing power needed	
13.5.a	Severity of Cost	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.a	Do you approve of this advice?	Yes
13.b	Comments	2FA should be common place across company's but unfortunately it's not

14	If a user is using a password manager, long random passwords should be generated	
14.1	Increased help desk/user support time	
14.1.a	Severity of Cost	Doesn't apply
14.1.b	Frequency Cost is Experienced	N/A
14.2	User education required	
14.2.a	Severity of Cost	Minor
14.2.b	Frequency Cost is Experienced	Once off
14.3	Organization needs extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Takes organization time to implement	
14.4.a	Severity of Cost	Doesn't apply
14.4.b	Frequency Cost is Experienced	N/A
14.5	Increases the organization's computing power needed	
14.5.a	Severity of Cost	Doesn't apply

14.5.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	If there is use of a password manager then yes all passwords should be as long as they can be

15	If physically distributed, a generated password should be sent in a sealed envelope	
15.1	Increased help desk/user support time	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	User education required	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A
15.3	Organization needs extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Takes organization time to implement	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the organization's computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Yes
15.b	Comments	I'm for this idea but majority of companies nowadays are pushing for 100% paperless and "Go Digital" there has to be a digital method of sharing passwords securely

Final Comments

16	Do you agree with the five cost categories that were used to denote organization/administration costs in this survey?	Yes
16.a	Are there any cost categories that you think should be added or removed?	

17	This is the end of the survey do you have any final comments?	

Response ID	Completion date	
634211-634202-66754952	24 Oct 2020, 15:24 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is submitted. I understand that after that point, as the survey is anonymous, it will not be possible to identify and remove the data.	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the information sheet.	
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here:	
1.5.a		Yes

2	I consent to participate in this survey:	Yes

3	Password files should be encrypted	
3.1	Increased help desk/user support time	
3.1.a	Severity of Cost	Doesn't apply
3.1.b	Frequency Cost is Experienced	N/A
3.2	User education required	
3.2.a	Severity of Cost	Minor
3.2.b	Frequency Cost is Experienced	Once off
3.3	Organization needs extra resources	
3.3.a	Severity of Cost	Doesn't apply
3.3.b	Frequency Cost is Experienced	N/A
3.4	Takes organization time to implement	
3.4.a	Severity of Cost	Minor
3.4.b	Frequency Cost is Experienced	Once off

3.5	Increases the organization's computing power needed	
3.5.a	Severity of Cost	Doesn't apply
3.5.b	Frequency Cost is Experienced	N/A
3.a	Do you approve of this advice?	Yes
3.b	Comments	So this question slightly confused me as to what you were referring to with "Password Files" if you mean files that require a password, yeah certainly. If you mean files containing passwords those really shouldn't exist if at all possible and definitely should be encrypted

4	Historical passwords should be stored to prevent password reuse	
4.1	Increased help desk/user support time	
4.1.a	Severity of Cost	Doesn't apply
4.1.b	Frequency Cost is Experienced	N/A
4.2	User education required	
4.2.a	Severity of Cost	Doesn't apply
4.2.b	Frequency Cost is Experienced	N/A
4.3	Organization needs extra resources	
4.3.a	Severity of Cost	Doesn't apply
4.3.b	Frequency Cost is Experienced	N/A
4.4	Takes organization time to implement	
4.4.a	Severity of Cost	Minor
4.4.b	Frequency Cost is Experienced	Once off
4.5	Increases the organization's computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Yes
4.b	Comments	Always a good idea, people will tend to use their old password with an incremented number on the end though. Of course these passwords should be hashed and salted while being stored too.

5	All default passwords should be changed	
5.1	Increased help desk/user support time	
5.1.a	Severity of Cost	Minor
5.1.b	Frequency Cost is Experienced	Periodic
5.2	User education required	
5.2.a	Severity of Cost	Doesn't apply
5.2.b	Frequency Cost is Experienced	N/A
5.3	Organization needs extra resources	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Takes organization time to implement	
5.4.a	Severity of Cost	Minor
5.4.b	Frequency Cost is Experienced	Once off
5.5	Increases the organization's computing power needed	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	These default passwords should also be random too, not the same. As an attacker I shouldn't be able to guess a series of emails with a known default password. Minor increase just because the people who tend to leave their passwords as default will now have to remember something else.

6	Technical Defenses or Controls should be implemented	
6.1	Increased help desk/user support time	
6.1.a	Severity of Cost	Minor
6.1.b	Frequency Cost is Experienced	Periodic
6.2	User education required	
6.2.a	Severity of Cost	Major
6.2.b	Frequency Cost is Experienced	Periodic
6.3	Organization needs extra resources	
6.3.a	Severity of Cost	Doesn't apply

6.3.b	Frequency Cost is Experienced	N/A
6.4	**Takes organization time to implement**	
6.4.a	Severity of Cost	Major
6.4.b	Frequency Cost is Experienced	Once off
6.5	**Increases the organization's computing power needed**	
6.5.a	Severity of Cost	Doesn't apply
6.5.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Yes
6.b	Comments	I would go as far as saying MFA should be mandatory any company resources should have to be accessed over a vpn and the access policy on that VPN should have you running some sort of company approved anti-virus (sophos or fireeye for example).

7	**Composition rules should be enforced for passwords (e.g. must have letters, numbers and a special character)**	
7.1	**Increased help desk/user support time**	
7.1.a	Severity of Cost	Minor
7.1.b	Frequency Cost is Experienced	Periodic
7.2	**User education required**	
7.2.a	Severity of Cost	Doesn't apply
7.2.b	Frequency Cost is Experienced	N/A
7.3	**Organization needs extra resources**	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	**Takes organization time to implement**	
7.4.a	Severity of Cost	Doesn't apply
7.4.b	Frequency Cost is Experienced	N/A
7.5	**Increases the organization's computing power needed**	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	No

| 7.b | Comments | So I kind of hate composition rules. If I as an attacker get access to a dump of hashed passwords or try to brute force a login and I know their composition policy (which seeing as most companies use the same 1 upper 1 lower 1 number and 1 symbol policy isn't that hard to imagine) there are actually now less combinations I have to worry about due to the fact that I know these now have to contain a letter/number/special character. We also know that these characters will generally fall into 3 categories 1. post-fix e.g. password1 or password$ 2. Separator e.g. my_password 3. Substitution e.g. p@ssw0rd all of those example passwords would be valid under a composition rule and they are all incredibly common and with common usage patterns to guess, it also helps (helps the attacker that is) that passwords with these extra requirements tend to be shorter due to the characters and numbers making them harder to remember. So really what we have ended up doing with composition rules is we've made passwords easier for computers to guess and harder for users to remember. |

8	Length restrictions for passwords should be enforced (e.g. password must be at least 8 characters)
8.1	Increased help desk/user support time
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Periodic
8.2	User education required
8.2.a	Severity of Cost	Major
8.2.b	Frequency Cost is Experienced	Periodic
8.3	Organization needs extra resources
8.3.a	Severity of Cost	Doesn't apply
8.3.b	Frequency Cost is Experienced	N/A
8.4	Takes organization time to implement

8.4.a	Severity of Cost	Doesn't apply
8.4.b	Frequency Cost is Experienced	N/A
8.5	Increases the organization's computing power needed	
8.5.a	Severity of Cost	Doesn't apply
8.5.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	Yes
8.b	Comments	So to do this correctly users will need major education on how to correctly choose a password that is both memorable and secure. The longer a password is the harder the hash is to crack. For myself personally there is not a password in my "keychain" that is anything less than 16 characters (unless for some reason the thing I'm logging into has a max character requirement)

9	When logging in, users should not use the "remember me" option	
9.1	Increased help desk/user support time	
9.1.a	Severity of Cost	Doesn't apply
9.1.b	Frequency Cost is Experienced	N/A
9.2	User education required	
9.2.a	Severity of Cost	Minor
9.2.b	Frequency Cost is Experienced	Once off
9.3	Organization needs extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Takes organization time to implement	
9.4.a	Severity of Cost	Doesn't apply
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the organization's computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Yes

9.b	Comments	Laptops can get stolen, people can come up to work stations when they are empty.

10	A user should never send their password by email	
10.1	Increased help desk/user support time	
10.1.a	Severity of Cost	Doesn't apply
10.1.b	Frequency Cost is Experienced	N/A
10.2	User education required	
10.2.a	Severity of Cost	Minor
10.2.b	Frequency Cost is Experienced	Once off
10.3	Organization needs extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Takes organization time to implement	
10.4.a	Severity of Cost	Doesn't apply
10.4.b	Frequency Cost is Experienced	N/A
10.5	Increases the organization's computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	I would extend that to say that passwords should never be written down or stored digitally anywhere. With the only exception to that rule being whilst using a password manager like LastPass or OnePassword

11	A user's email should be kept up-to-date and secure	
11.1	Increased help desk/user support time	
11.1.a	Severity of Cost	Minor
11.1.b	Frequency Cost is Experienced	Periodic
11.2	User education required	
11.2.a	Severity of Cost	Minor
11.2.b	Frequency Cost is Experienced	Periodic

11.3	Organization needs extra resources	
11.3.a	Severity of Cost	Doesn't apply
11.3.b	Frequency Cost is Experienced	N/A
11.4	Takes organization time to implement	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the organization's computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	
11.b	Comments	

12	A user's software should be kept up to date	
12.1	Increased help desk/user support time	
12.1.a	Severity of Cost	Major
12.1.b	Frequency Cost is Experienced	Periodic
12.2	User education required	
12.2.a	Severity of Cost	Minor
12.2.b	Frequency Cost is Experienced	Periodic
12.3	Organization needs extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Takes organization time to implement	
12.4.a	Severity of Cost	Major
12.4.b	Frequency Cost is Experienced	Periodic
12.5	Increases the organization's computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.a	Do you approve of this advice?	Yes
12.b	Comments	I have worked for a large (over 100 million users) company who had their entire internal network compromised by employees using out of date VPN software

13	Users should have to use some form of 2-factor authentication	
13.1	Increased help desk/user support time	
13.1.a	Severity of Cost	Minor
13.1.b	Frequency Cost is Experienced	Periodic
13.2	User education required	
13.2.a	Severity of Cost	Minor
13.2.b	Frequency Cost is Experienced	Periodic
13.3	Organization needs extra resources	
13.3.a	Severity of Cost	Doesn't apply
13.3.b	Frequency Cost is Experienced	N/A
13.4	Takes organization time to implement	
13.4.a	Severity of Cost	Minor
13.4.b	Frequency Cost is Experienced	Once off
13.5	Increases the organization's computing power needed	
13.5.a	Severity of Cost	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.a	Do you approve of this advice?	Yes
13.b	Comments	Should be completely mandatory. Be it a push notification to their phone or some randomly generated OTP or both. Some form of MFA should be used.

14	If a user is using a password manager, long random passwords should be generated	
14.1	Increased help desk/user support time	
14.1.a	Severity of Cost	Minor
14.1.b	Frequency Cost is Experienced	Periodic
14.2	User education required	
14.2.a	Severity of Cost	Minor
14.2.b	Frequency Cost is Experienced	Periodic
14.3	Organization needs extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Takes organization time to implement	

14.4.a	Severity of Cost	Minor
14.4.b	Frequency Cost is Experienced	Once off
14.5	Increases the organization's computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	LastPass has a great enterprise plan that I think any mid-sized company should invest in for their employees

15	If physically distributed, a generated password should be sent in a sealed envelope	
15.1	Increased help desk/user support time	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	User education required	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A
15.3	Organization needs extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Takes organization time to implement	
15.4.a	Severity of Cost	Minor
15.4.b	Frequency Cost is Experienced	Once off
15.5	Increases the organization's computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Neutral
15.b	Comments	I think it would be more important to make sure that the passwords need to be changed on first login but I mean it can't hurt to conceal them in some way.

Final Comments

16	Do you agree with the five cost categories that were used to denote organization/administration costs in this survey?	Yes
16.a	Are there any cost categories that you think should be added or removed?	

| 17 | This is the end of the survey do you have any final comments? | We're only as secure as our least secure password. You can have every precaution under the sun but if Bob from finance is using p@ssw0rd as his password and isn't using MFA you're going to lose all of your financial records.

Bit of background on myself, while I'm not directly involved on the day to day of managing users and passwords, I am a developer who has written many Authorization and Authentication systems over the years and as you can probably tell I have become pretty opinionated about it.

Education is incredibly important when it comes to password creation and password management. I believe nowadays at a bare minimum the following should be mandatory

1. Password Length (I would say at least 16 characters but people will disagree with me on that)
2. Multi-Factor Authentication: Push notification or a OTP (One Time Password)

If we're talking internal to a company here I believe employers should provide a subscription to something like LastPass or OnePassword and provide education on how to use it properly. Both of those pieces of software can generate random passwords of gibberish of a specified length and I'm not sure about LastPass but OnePassword can also generate a memorable and secure password of a specified length. Both can also manage OTPs for MFA as well which is just handy.

I also believe a company should maintain a "Common Password" list |
|---|---|---|

and automatically bar them from being used (using a common password dictionary is a common tactic of attackers) or if they don't want to maintain their own they can integrate with a service like haveibeenpwned (HIPB) run by Troy Hunt who anyone concerned with security should be following imo.

From a B2C (Business to Consumer) sense the business should be doing their best to promote MFA and maintaining a list of banned "Common Passwords" (or once again integrating with HIBP) granted you have less control over the random users that stumble on your site.

I wont get too much into my hatred for composition policies again but I will leave a link to this XKCD comic which kind of sums it up: https://xkcd.com/936/

Hope my ramblings could be of some help.

Response ID	Completion date	
634211-634202-66871889	27 Oct 2020, 16:07 (GMT)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is submitted. I understand that after that point, as the survey is anonymous, it will not be possible to identify and remove the data.	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the information sheet.	
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here:	
1.5.a		Yes

2	I consent to participate in this survey:	Yes

3	Password files should be encrypted	
3.1	Increased help desk/user support time	
3.1.a	Severity of Cost	Minor
3.1.b	Frequency Cost is Experienced	Periodic
3.2	User education required	
3.2.a	Severity of Cost	Minor
3.2.b	Frequency Cost is Experienced	Periodic
3.3	Organization needs extra resources	
3.3.a	Severity of Cost	Doesn't apply
3.3.b	Frequency Cost is Experienced	N/A
3.4	Takes organization time to implement	
3.4.a	Severity of Cost	Minor
3.4.b	Frequency Cost is Experienced	Once off

3.5	Increases the organization's computing power needed	
3.5.a	Severity of Cost	Minor
3.5.b	Frequency Cost is Experienced	N/A
3.a	Do you approve of this advice?	Yes
3.b	Comments	

4	Historical passwords should be stored to prevent password reuse	
4.1	Increased help desk/user support time	
4.1.a	Severity of Cost	Minor
4.1.b	Frequency Cost is Experienced	Periodic
4.2	User education required	
4.2.a	Severity of Cost	Minor
4.2.b	Frequency Cost is Experienced	Periodic
4.3	Organization needs extra resources	
4.3.a	Severity of Cost	Minor
4.3.b	Frequency Cost is Experienced	Once off
4.4	Takes organization time to implement	
4.4.a	Severity of Cost	Minor
4.4.b	Frequency Cost is Experienced	Once off
4.5	Increases the organization's computing power needed	
4.5.a	Severity of Cost	Minor
4.5.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	No
4.b	Comments	If you require too many new passwords people are inclined to use easier or formula passwords

5	All default passwords should be changed	
5.1	Increased help desk/user support time	
5.1.a	Severity of Cost	Minor
5.1.b	Frequency Cost is Experienced	Periodic
5.2	User education required	
5.2.a	Severity of Cost	Minor
5.2.b	Frequency Cost is Experienced	Periodic

5.3	Organization needs extra resources	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Takes organization time to implement	
5.4.a	Severity of Cost	Minor
5.4.b	Frequency Cost is Experienced	Once off
5.5	Increases the organization's computing power needed	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	Absolutely

6	Technical Defenses or Controls should be implemented	
6.1	Increased help desk/user support time	
6.1.a	Severity of Cost	Doesn't apply
6.1.b	Frequency Cost is Experienced	N/A
6.2	User education required	
6.2.a	Severity of Cost	Doesn't apply
6.2.b	Frequency Cost is Experienced	N/A
6.3	Organization needs extra resources	
6.3.a	Severity of Cost	Don't know
6.3.b	Frequency Cost is Experienced	N/A
6.4	Takes organization time to implement	
6.4.a	Severity of Cost	Don't know
6.4.b	Frequency Cost is Experienced	N/A
6.5	Increases the organization's computing power needed	
6.5.a	Severity of Cost	Don't know
6.5.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Yes
6.b	Comments	The question is too open ended to assess probably costs.

7	Composition rules should be enforced for passwords (e.g. must have letters, numbers and a special character)

7.1	Increased help desk/user support time	
7.1.a	Severity of Cost	Minor
7.1.b	Frequency Cost is Experienced	Periodic
7.2	User education required	
7.2.a	Severity of Cost	Minor
7.2.b	Frequency Cost is Experienced	Periodic
7.3	Organization needs extra resources	
7.3.a	Severity of Cost	Minor
7.3.b	Frequency Cost is Experienced	Once off
7.4	Takes organization time to implement	
7.4.a	Severity of Cost	Minor
7.4.b	Frequency Cost is Experienced	Once off
7.5	Increases the organization's computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Yes
7.b	Comments	

8	Length restrictions for passwords should be enforced (e.g. password must be at least 8 characters)	
8.1	Increased help desk/user support time	
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Periodic
8.2	User education required	
8.2.a	Severity of Cost	Minor
8.2.b	Frequency Cost is Experienced	Periodic
8.3	Organization needs extra resources	
8.3.a	Severity of Cost	Minor
8.3.b	Frequency Cost is Experienced	Once off
8.4	Takes organization time to implement	
8.4.a	Severity of Cost	Minor
8.4.b	Frequency Cost is Experienced	N/A
8.5	Increases the organization's computing power needed	
8.5.a	Severity of Cost	Minor

8.5.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	Yes
8.b	Comments	

9	When logging in, users should not use the "remember me" option	
9.1	Increased help desk/user support time	
9.1.a	Severity of Cost	Minor
9.1.b	Frequency Cost is Experienced	Periodic
9.2	User education required	
9.2.a	Severity of Cost	Minor
9.2.b	Frequency Cost is Experienced	At Login
9.3	Organization needs extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Takes organization time to implement	
9.4.a	Severity of Cost	Minor
9.4.b	Frequency Cost is Experienced	Once off
9.5	Increases the organization's computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Yes
9.b	Comments	Absolutely

10	A user should never send their password by email	
10.1	Increased help desk/user support time	
10.1.a	Severity of Cost	Minor
10.1.b	Frequency Cost is Experienced	Periodic
10.2	User education required	
10.2.a	Severity of Cost	Minor
10.2.b	Frequency Cost is Experienced	Periodic
10.3	Organization needs extra resources	
10.3.a	Severity of Cost	Doesn't apply

10.3.b	Frequency Cost is Experienced	N/A
10.4	Takes organization time to implement	
10.4.a	Severity of Cost	Minor
10.4.b	Frequency Cost is Experienced	Once off
10.5	Increases the organization's computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	Absolutely

11	A user's email should be kept up-to-date and secure	
11.1	Increased help desk/user support time	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	User education required	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Organization needs extra resources	
11.3.a	Severity of Cost	Minor
11.3.b	Frequency Cost is Experienced	Periodic
11.4	Takes organization time to implement	
11.4.a	Severity of Cost	Minor
11.4.b	Frequency Cost is Experienced	Once off
11.5	Increases the organization's computing power needed	
11.5.a	Severity of Cost	Minor
11.5.b	Frequency Cost is Experienced	Periodic
11.a	Do you approve of this advice?	Yes
11.b	Comments	

12	A user's software should be kept up to date	
12.1	Increased help desk/user support time	
12.1.a	Severity of Cost	Minor
12.1.b	Frequency Cost is Experienced	Periodic

12.2	User education required	
12.2.a	Severity of Cost	Minor
12.2.b	Frequency Cost is Experienced	Periodic
12.3	Organization needs extra resources	
12.3.a	Severity of Cost	Minor
12.3.b	Frequency Cost is Experienced	Periodic
12.4	Takes organization time to implement	
12.4.a	Severity of Cost	Minor
12.4.b	Frequency Cost is Experienced	Once off
12.5	Increases the organization's computing power needed	
12.5.a	Severity of Cost	Don't know
12.5.b	Frequency Cost is Experienced	N/A
12.a	Do you approve of this advice?	Yes
12.b	Comments	

13	Users should have to use some form of 2-factor authentication	
13.1	Increased help desk/user support time	
13.1.a	Severity of Cost	Minor
13.1.b	Frequency Cost is Experienced	Periodic
13.2	User education required	
13.2.a	Severity of Cost	Minor
13.2.b	Frequency Cost is Experienced	Periodic
13.3	Organization needs extra resources	
13.3.a	Severity of Cost	Don't know
13.3.b	Frequency Cost is Experienced	Don't know
13.4	Takes organization time to implement	
13.4.a	Severity of Cost	Don't know
13.4.b	Frequency Cost is Experienced	Don't know
13.5	Increases the organization's computing power needed	
13.5.a	Severity of Cost	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.a	Do you approve of this advice?	Neutral

13.b	Comments	Costs can be variable depending on implimentation, danger of requiring users to turn over more personal data to third parties such as Google. Costs impacted when using hardware 2FA devices.

14	If a user is using a password manager, long random passwords should be generated	
14.1	Increased help desk/user support time	
14.1.a	Severity of Cost	Minor
14.1.b	Frequency Cost is Experienced	N/A
14.2	User education required	
14.2.a	Severity of Cost	Minor
14.2.b	Frequency Cost is Experienced	N/A
14.3	Organization needs extra resources	
14.3.a	Severity of Cost	Don't know
14.3.b	Frequency Cost is Experienced	N/A
14.4	Takes organization time to implement	
14.4.a	Severity of Cost	Minor
14.4.b	Frequency Cost is Experienced	Once off
14.5	Increases the organization's computing power needed	
14.5.a	Severity of Cost	Don't know
14.5.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	Costs can depend on software v hardware password managers

15	If physically distributed, a generated password should be sent in a sealed envelope	
15.1	Increased help desk/user support time	
15.1.a	Severity of Cost	Minor
15.1.b	Frequency Cost is Experienced	Periodic
15.2	User education required	
15.2.a	Severity of Cost	Minor
15.2.b	Frequency Cost is Experienced	Periodic
15.3	Organization needs extra resources	

15.3.a	Severity of Cost	Minor
15.3.b	Frequency Cost is Experienced	Periodic
15.4	Takes organization time to implement	
15.4.a	Severity of Cost	Minor
15.4.b	Frequency Cost is Experienced	Once off
15.5	Increases the organization's computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Yes
15.b	Comments	Sealed envelopes are not required sending parts of a password by seperare services can work, part by email without data on the characters meaning, part via SMS, part over Voice etc.

Final Comments

16	Do you agree with the five cost categories that were used to denote organization/administration costs in this survey?	Yes
16.a	Are there any cost categories that you think should be added or removed?	Some costs referred as minor would be better served by minimal or negligible. Everything has a cost sometimes it is small, but in may areas questioned in this survey, the benefit outweighs the cost.

17	This is the end of the survey do you have any final comments?	