A Better Security and Multi-Factor Authentication

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Data we can never leak ...

- Every single day, some 50,000 members of our university have
 - UTokyo Account (10-digits@utac.u-tokyo.ac.jp)
 - Google Account (@g.ecc.u-tokyo.ac.jp)

accessible from the Internet ...



Basics for a better protection

- Never use easy-to-guess passwords
 - If you do, change it today!
 - Change it to a long and complex password (you can generate one by <u>this</u>)
- Multi-Factor Authentication (today's)

What is Multi-Factor Authentication (MFA)?

- In general, it is a sign-in process that confirms two or more pieces of information the only claimed user can know or possess
 - password, phone, smartphone, biometrics, a special device, etc.
- In practice, a sign-in process using "a password + one more thing"

Why MFA?

- Without it, your password is guessed, and you are all over
- MFA makes you much, much safer
 - ◆ A crude analogy: the probability your account is compromised, which might be like 0.001 without MFA, becomes 0.001 × 0.001 = 0.00001
- Consolidate various service accounts into one and protect it strongly, thereby achieving both security and convenience

Isn't MFA cumbersome?

- Depends on the method, but the one using smartphone authenticator app is convenient
- As easy as just opening your phone (particularly easy you are addicted anyways)
 - Demo: <u>Microsoft Authenticator</u> to <u>login ITC-LMS</u>
 - ◆ There is an iOS app, too



Methods other than Microsoft Authenticator

- ◆ <u>SMS</u> (6 digits sent to your cell phone)
- Voice phone (pick your phone and press #)
 - Cell phone
 - Home phone
- ◆ Google authenticator, anyway
 - Like Microsoft Authenticator, but UTokyo Account works better with the Microsoft one
- Please register at least one method besides Microsoft Authenticator, so you can change your smartphone safely

Will MFA be mandatory?

- When the service starts on Sep 27, "strongly recommended"
- Future: we wish to mandate it when everybody becomes ready for it
- You will have enough time to prepare
- We mandate it for new security-critical services associated with UTokyo Account
 - VPN (Chapter 3 by Tamatsukuri)

How to use them

 We will make a summary page on utelecon soon

Account	Multi-Factor Authentication	Change password
UTokyo	Turn it on (after Sep 27) https://webmtn/LoginServlet → https://mysignins.microsoft.com/security-info?domain_hint=utac.u-tokyo.ac.jp	https://utacm.adm.u- tokyo.ac.jp/webmtn/LoginServlet
Google	<pre>https://myaccount.google.com/securi ty</pre>	https://idm.ecc.u- tokyo.ac.jp/webmtn/

How to cancel it?

- ◆ Don't.
- But if you have to ...
- The system cannot automatically allow it as doing so would defeat its purpose; we need to verify your identity offline
- ◆ We accept cancellation requests via you → your respective office → utelecon
 - We appreciate a cooperation (forwarding requests) by department offices
 - Like routing password reset requests for UTokyo Account

To sleep in piece ...

Data are in	The major threat	Precautions
cloud (UTokyo/Google Account)	password leak / break-in	strong passwords; MFA (smartphone, cell phone)
smartphone	physical loss	screen lock (biometric, PIN number)
PC	physical loss	disable auto-login, screen lock, encrypted drive



https://utelecon.adm.u-tokyo.ac.jp/

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Misc.

- Review your shared docs on Google Drive, OneDrive (these are what you ought to protect)
 - Remove or cancel sharing when no longer necessary
 - Share with only specific people if practical
- ◆ See also <u>在宅勤務のPC利用ガイド</u>