A Better Security and Multi-Factor Authentication
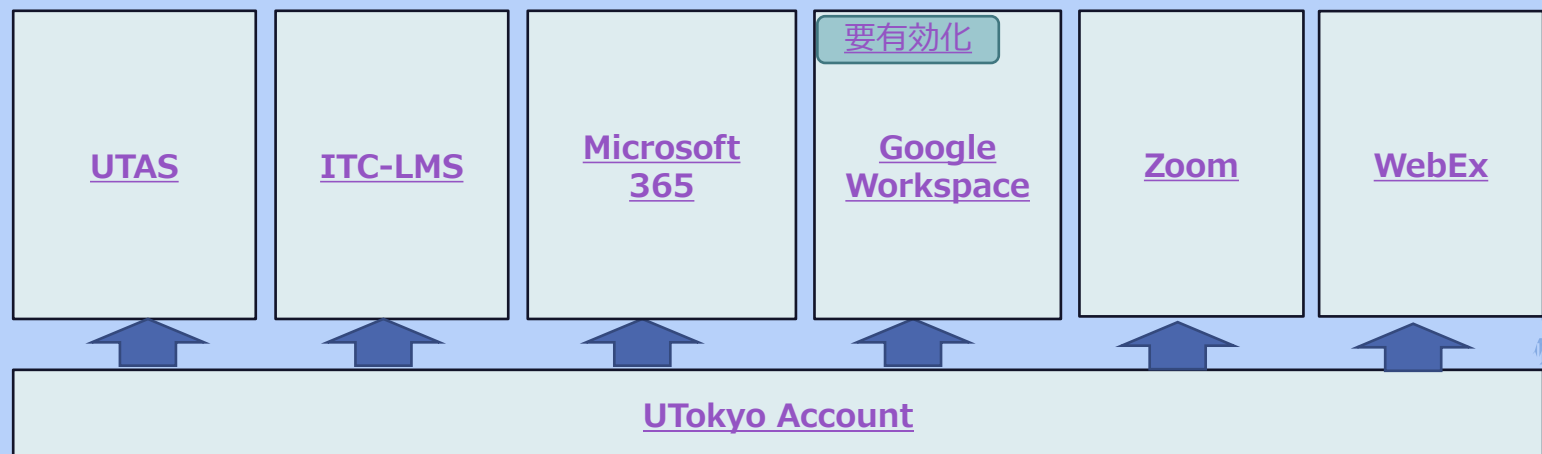
Kenjiro Taura

Information Technology Center

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 ...

UTAS	ITC-LMS	Microsoft 365	要有効化 Google Workspace	Zoom	WebEx

UTokyo Account

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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 this)
- Multi-Factor Authentication (today's 👁)

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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 $0.001 \times 0.001 = 0.00001$

- 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: Microsoft Authenticator to login ITC-LMS

  ◆ There is an iOS app, too

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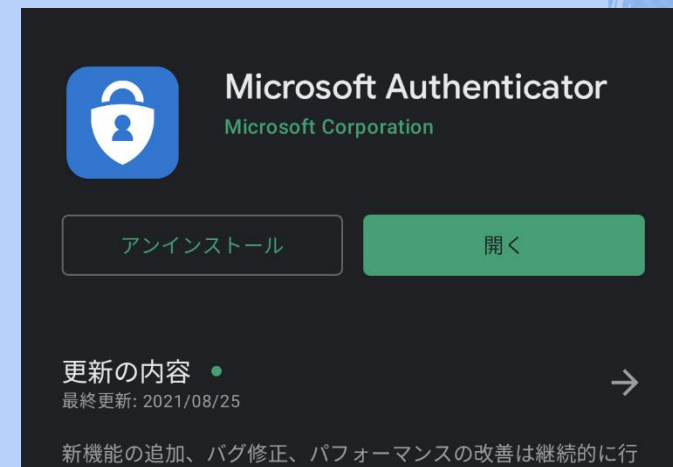
Methods other than Microsoft Authenticator

- [SMS](#) (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://utacm.adm.u-tokyo.ac.jp/webmtn/LoginServlet → and configure https://mysignins.microsoft.com/security-info?domain_hint=utac.u-tokyo.ac.jp	https://utacm.adm.u-tokyo.ac.jp/webmtn/LoginServlet
Google	https://myaccount.google.com/security	https://idm.ecc.u-tokyo.ac.jp/webmtn/sso-saml

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

data
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data
…

MFA

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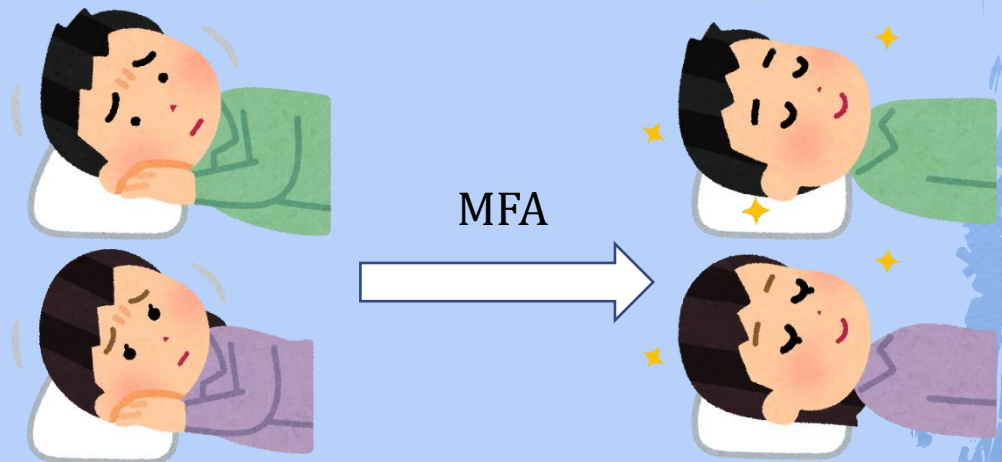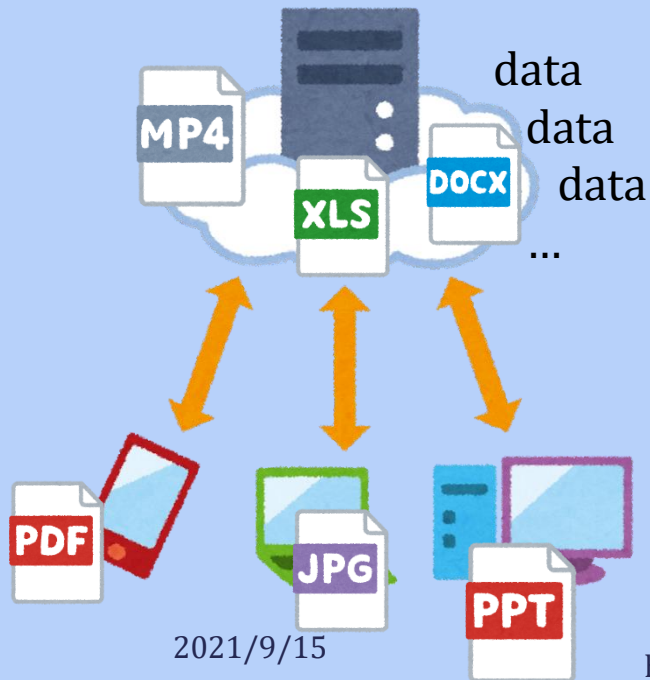
Misc.

- ◆ 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 在宅勤務のPC利用ガイド