Photo by Avel Chuklanov on Unsplash

Data Classification and Protection with Microsoft Information Protection

(2021 Updates for LAN Administrators)

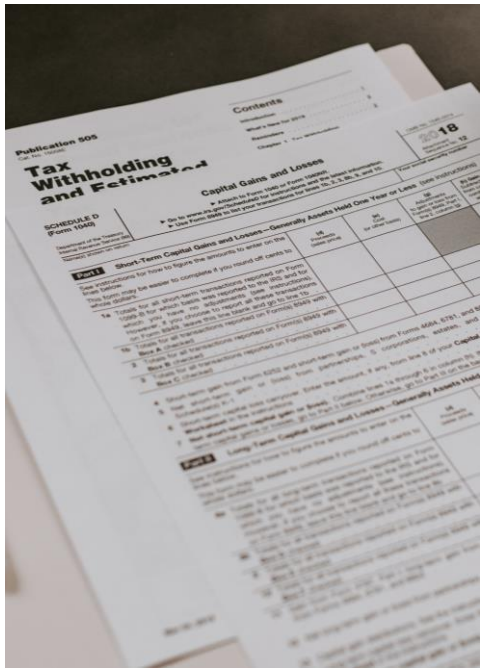
Information Technology Services Centre
December 2020

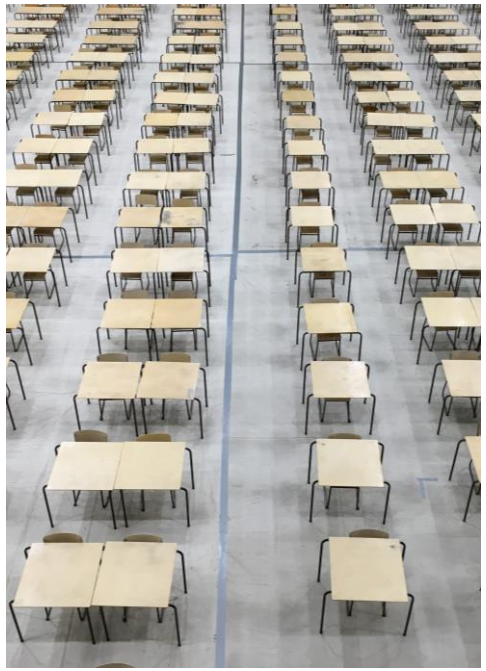
Agenda

- The Need for Document Protection
- Microsoft Information Protection
- Migration from Classic Client to Unified Client

The Need for Document Protection

- Maintaining high levels of document security keeps the University from loss of intellectual property, damage in reputation and facing legal consequences.




The Need for Document Protection

- Data Classification and Data Governance Policy, published in Aug 2016, proposes a comprehensive framework for protecting University's digital information, particularly digital-based documents.

Level	Data Classification	Definition	Example
1	Strictly Confidential	The HIGHEST level of security controls. Unauthorized disclosure of this data would cause **severe adverse effect** to individuals or on operations, assets and reputation of the University. *The STRICTEST security policy should be applied even if this may incur considerable inconvenience to the users.*	• Data deemed highly confidential by the University • Data protected by regulations such as the Hong Kong Personal Data (Privacy) Ordinance • Health/Patient information may or may not be regulated by Hospital Authority (HA)
2	Confidential	Unauthorized disclosure of this data would cause a **moderate level of risk** to individuals or the University. *Strict security policy should be applied even if this may incur some inconvenience to the users.*	• Data deemed confidential by the University • Personal data (e.g. Student ID, staff ID) not classified as Level 1.

Microsoft Information Protection

Microsoft Azure Information Protection (AIP)

- A **data protection solution** which helps you to classify, label and protect the documents according to the confidential level of the information.
- Once a document is **classified and labelled**, corresponding predefined **security policy will be applied immediately** to protect the document and **limit the access against unauthorized person**.

AIP Supported Document Types

Document Type	Create / Open Protected Document	
Microsoft Office (.docx / .xlsx / .pptx)	**Office 2016** • Use AIP client	**Office 2019 & Office 365** • Use AIP client add-in • Office built-in capability [1,2]
PDF	Use AIP client	
Email	**Office 2016** • Use AIP client add-in • Use Outlook on the web [2]	**Office 2019 & Office 365** • Use AIP client add-in • Office built-in capability [1,2] • Use Outlook on the web [2]

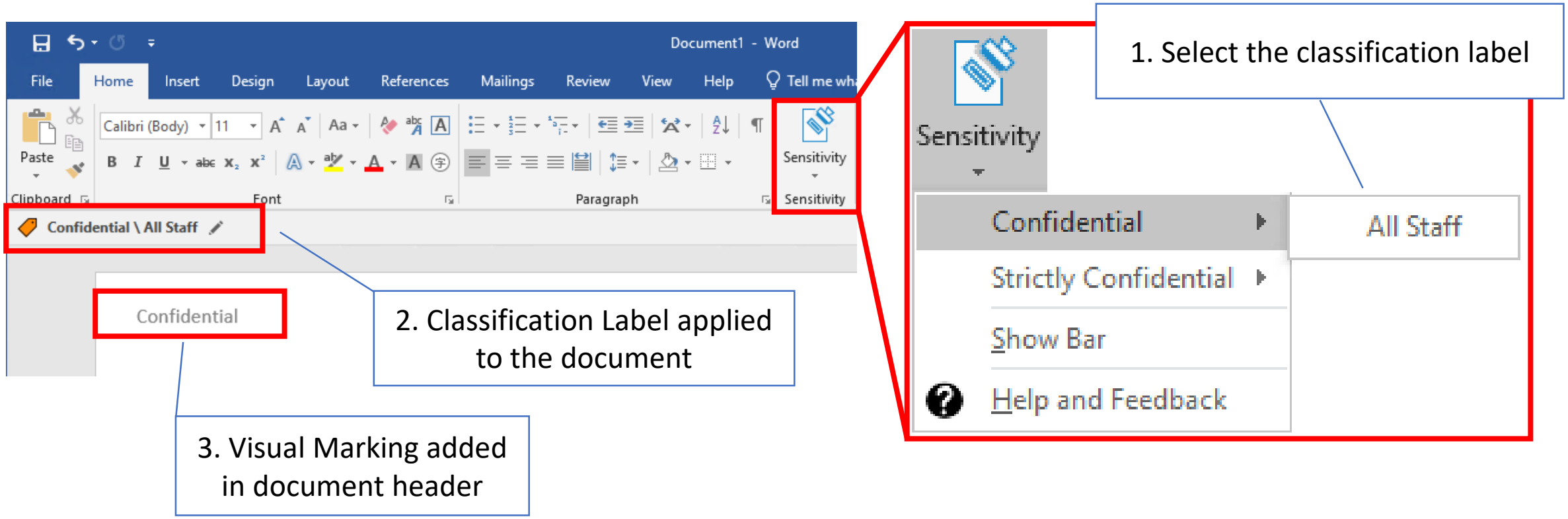
[1] Sign-in to Office app required. [2] Starting 7 Jan 2021.

Installing AIP Client

- Download the installer from [ITSC Website]

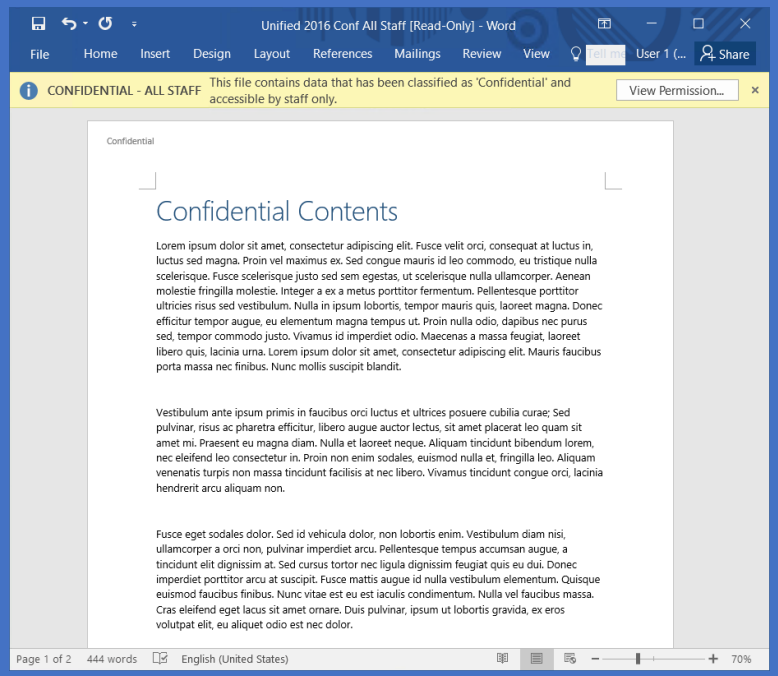
Predefined Classification Labels and Visual Markings

- Make your documents compliant with the policy in 1 click.

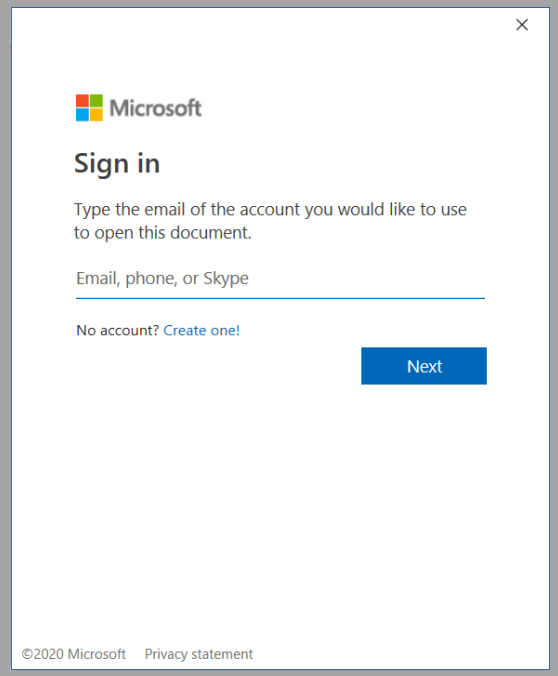


Open Protected Documents

- Outsiders are unable to open protected documents as they are encrypted.



Open by CUHK staff



Open by outsiders

Predefined Classification Labels and Visual Markings

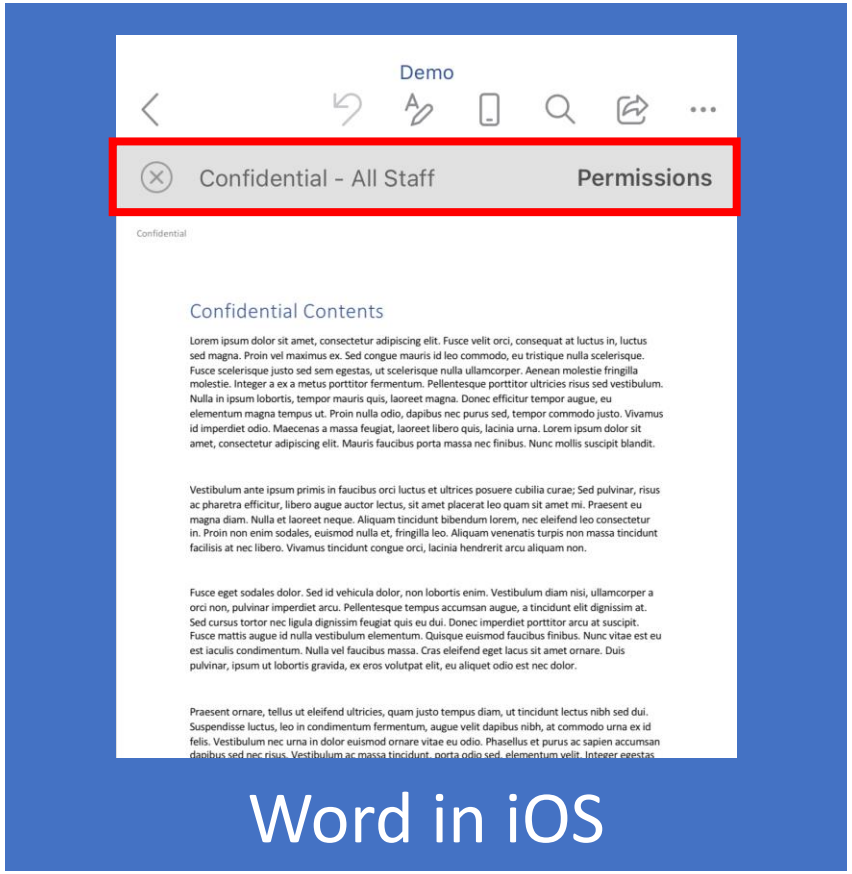
- Corresponds to Data Classification and Data Governance Policy.

Classification Label	Permissions to all Staff		Visual Markings in Office Documents* / Emails	Offline Access
Strictly Confidential – All Staff	✓ View ✓ Reply / Reply-all	× Edit × Save / Save-as / Export × Print × Forward × Copy-n-paste / screenshot	Header, and Footer Watermark (for Office Documents only)	1 day
Confidential – All Staff	✓ View ✓ Edit ✓ Save / Save-as / Export ✓ Reply / Reply-all / Forward		Header and Footer	7 days

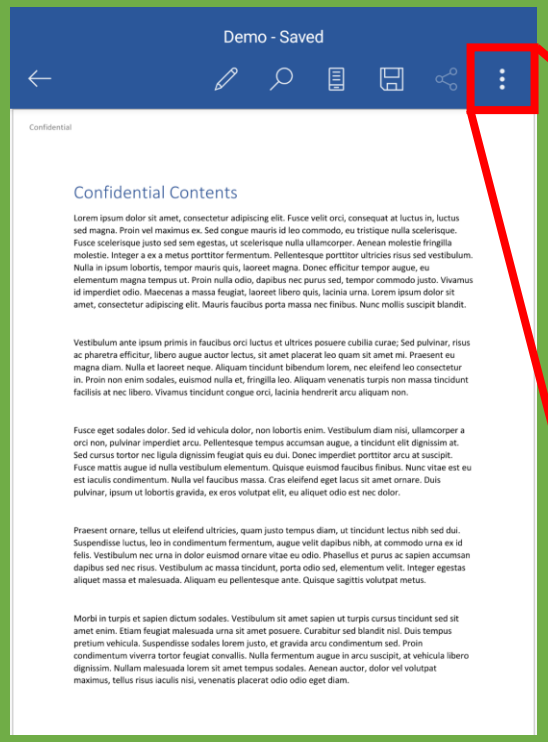
* Microsoft Word (.docx), Excel (.xlsx) and PowerPoint (.pptx)

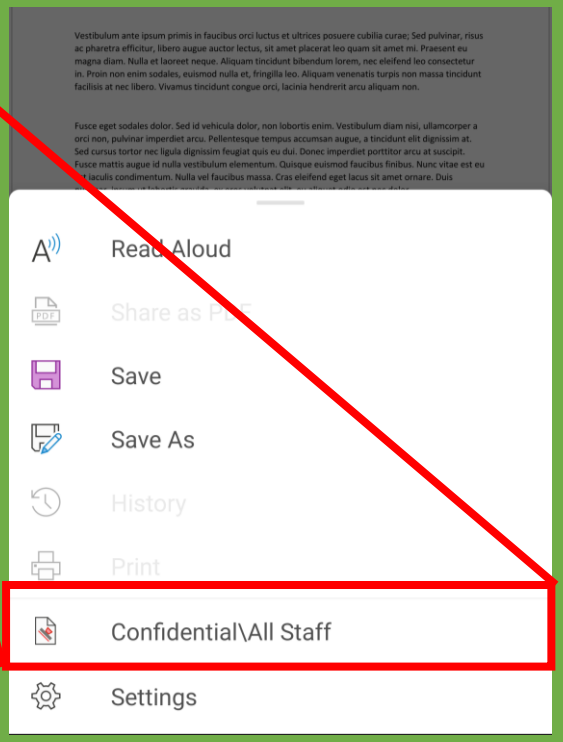
Open Office Documents from Mobile Device

- Use official Microsoft Office apps.



Word in iOS



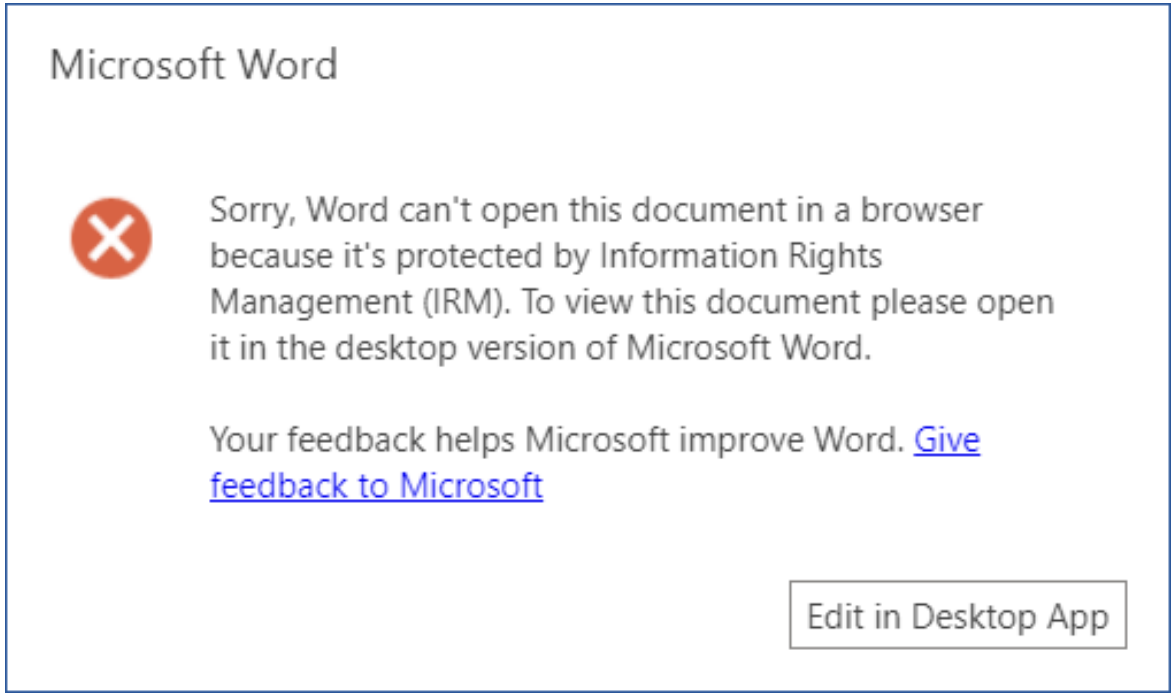


Word in Android

Open Office Documents in Office 365, OneDrive and SharePoint (web)

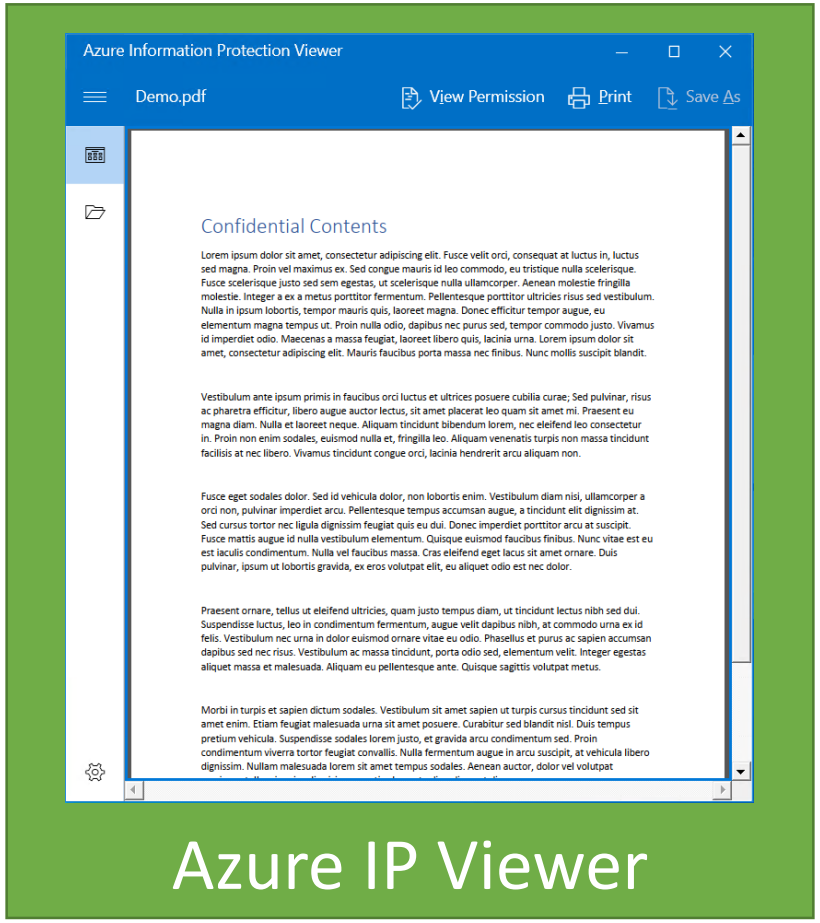
- Currently not supported. Please open protected files using desktop or mobile device.

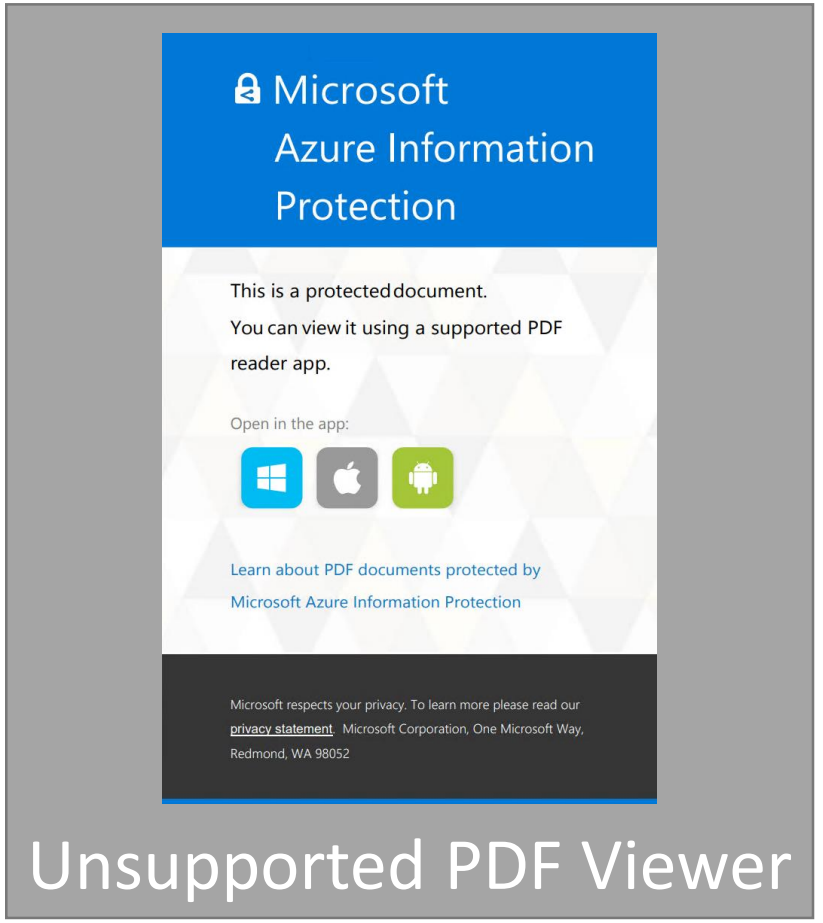
- Same for OneDrive and SharePoint unless files are opened in desktop app via a network drive.



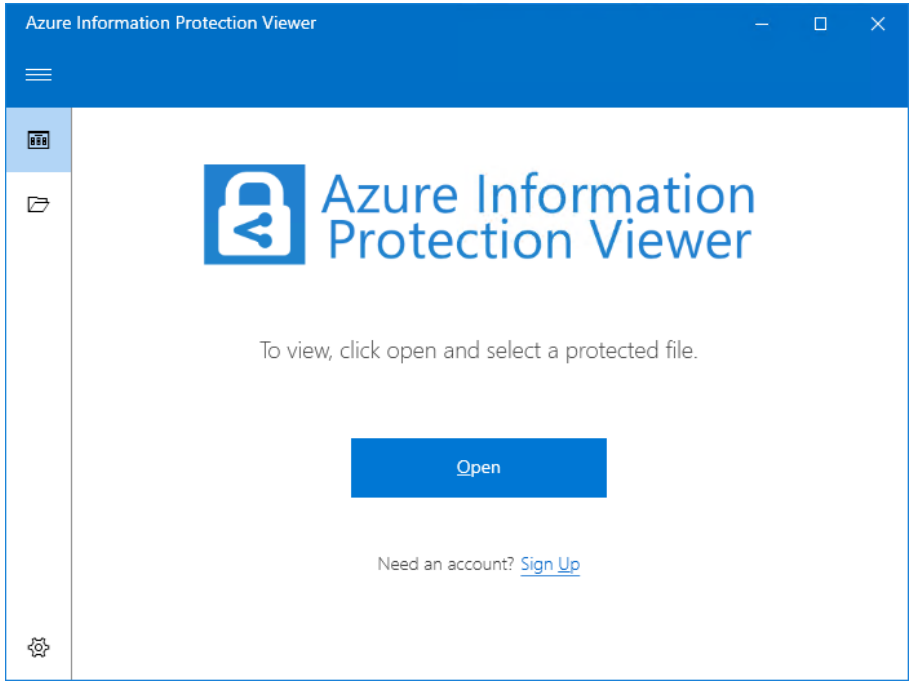
Open PDF Documents

- Use Azure Information Protection Viewer.
- Standard message will be shown for unsupported PDF viewer.





Open PDF Documents using Azure Information Protection Viewer (Windows)



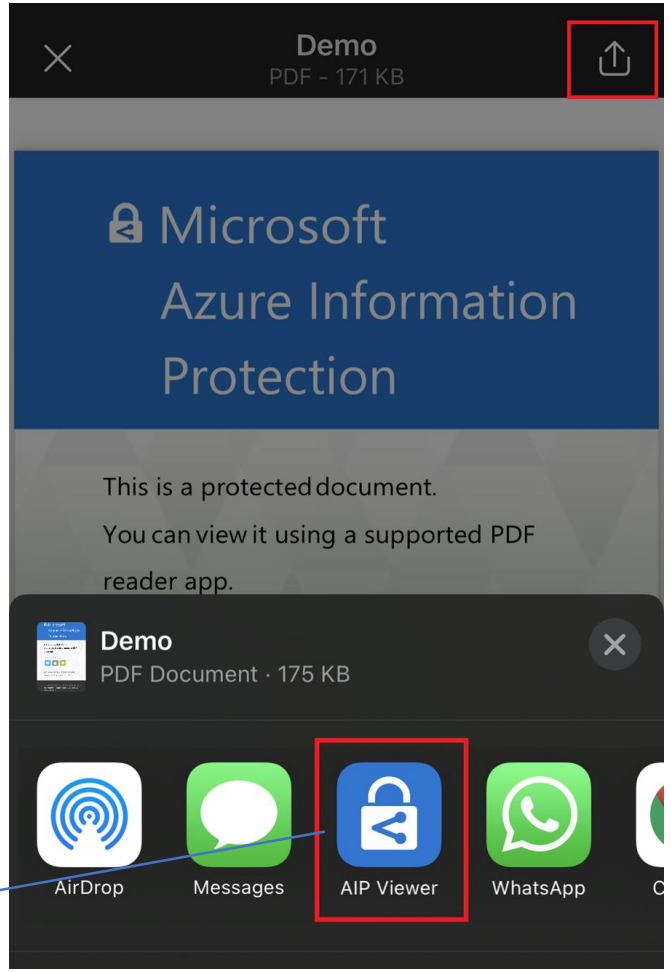
Launch the app from Start Menu …

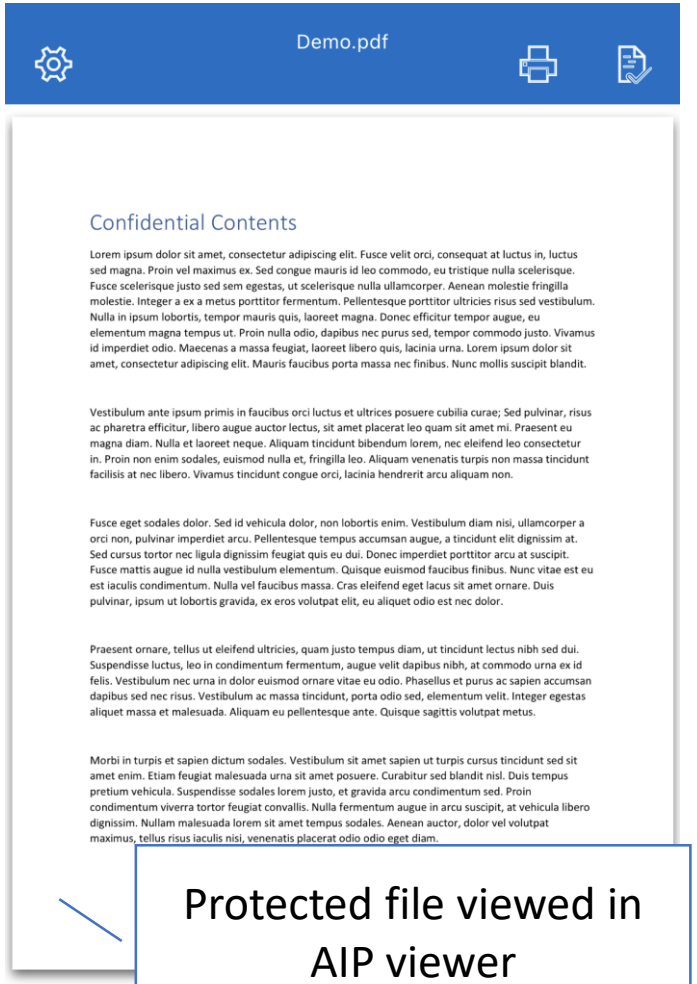
… or right-click the PDF file > Open with > Azure Information Protection Viewer

Open PDF Documents using Azure Information Protection Viewer (iOS / Android)

Starting 7 Jan 2021

- Install Azure Information Protection Viewer (iOS / Android) prior opening protected PDF files.
- Open protected PDF files in AIP Viewer app.





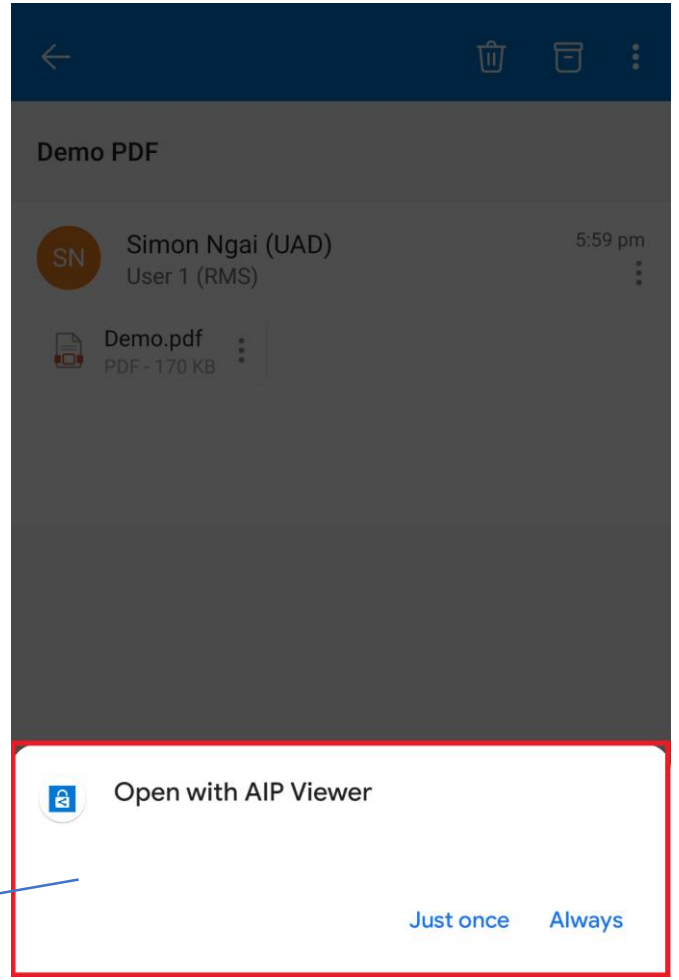
iOS: 'Share file via…' and pick AIP Viewer

Protected file viewed in AIP viewer

Open PDF Documents using Azure Information Protection Viewer (iOS / Android)

Starting 7 Jan 2021

- Install Azure Information Protection Viewer (iOS / Android) prior opening protected PDF files.
- Open protected PDF files in AIP Viewer app.



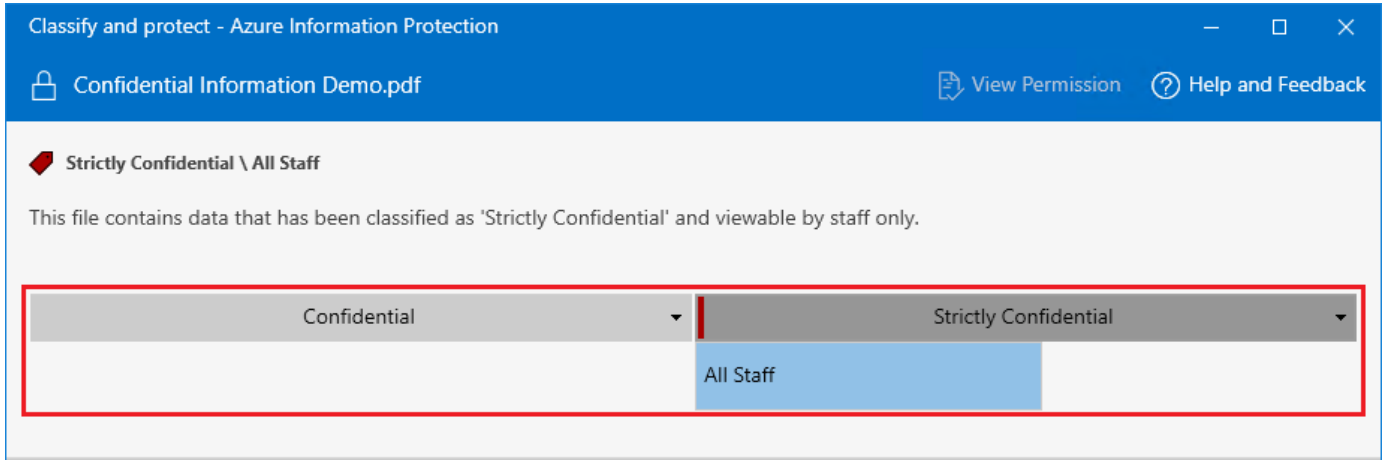
Android: Choose AIP Viewer when prompted

Protected file viewed in AIP viewer

Create Protected PDF Document using Azure Information Protection App (Windows)

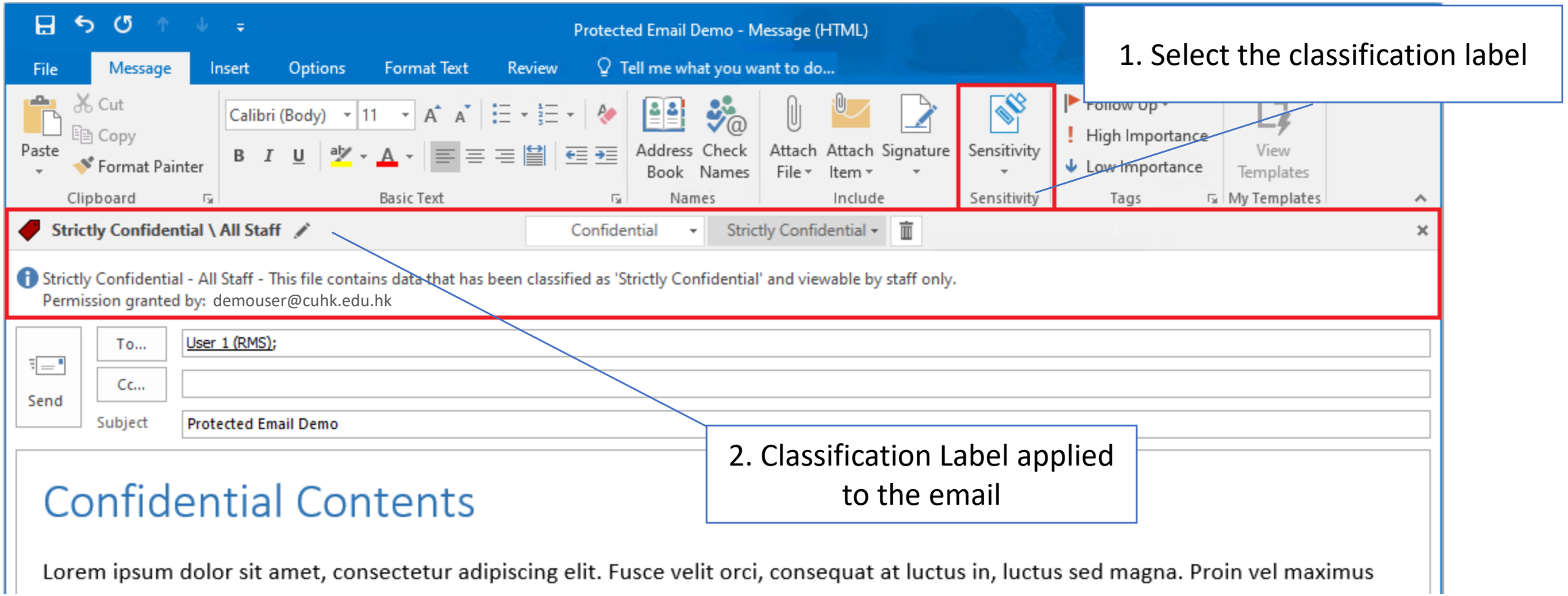
1. Right-click the PDF file and click ‘Classify and protect’ from the context menu.

2. Select preferred protection and click ‘Apply’ from AIP app.

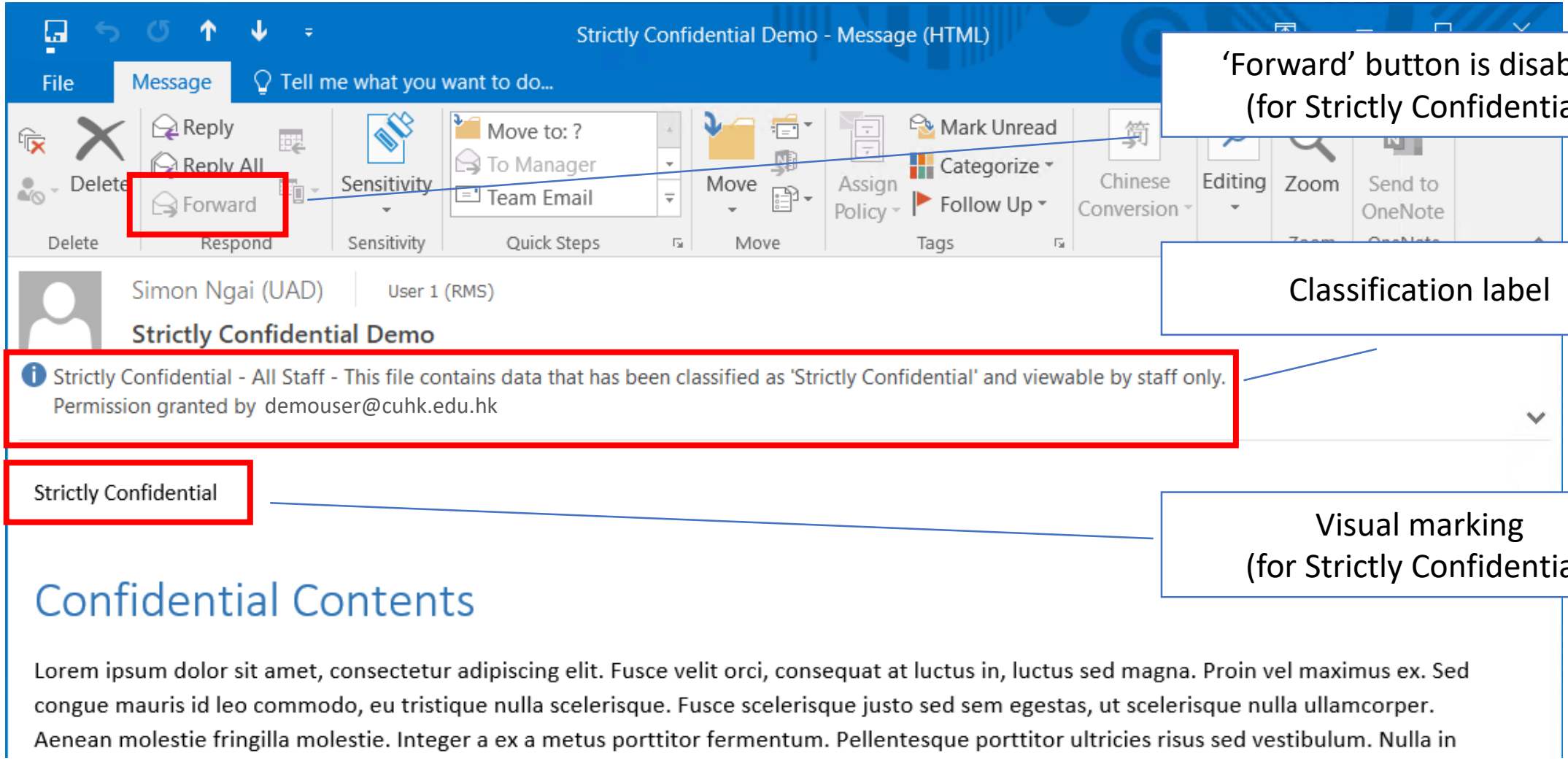


Send Protected Email

- Protect your email using the same way as protecting your documents.



Read Protected Email (by CUHK Staff)



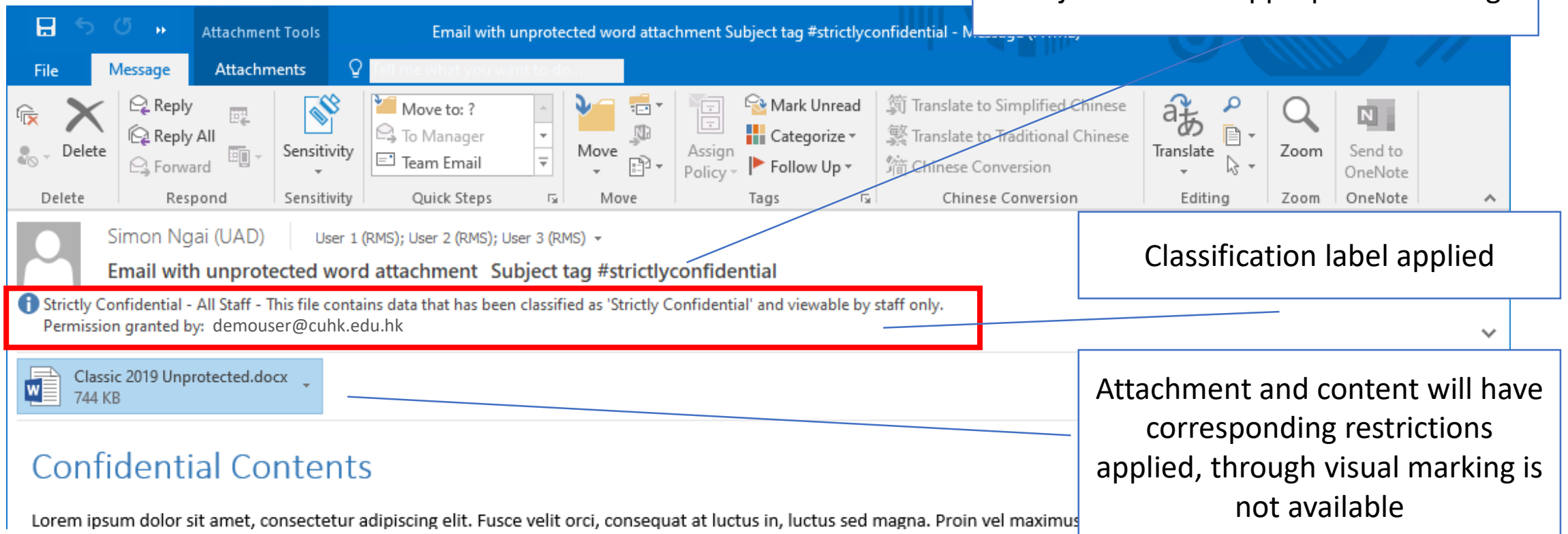
'Forward' button is disabled (for Strictly Confidential)

Classification label

Visual marking (for Strictly Confidential)

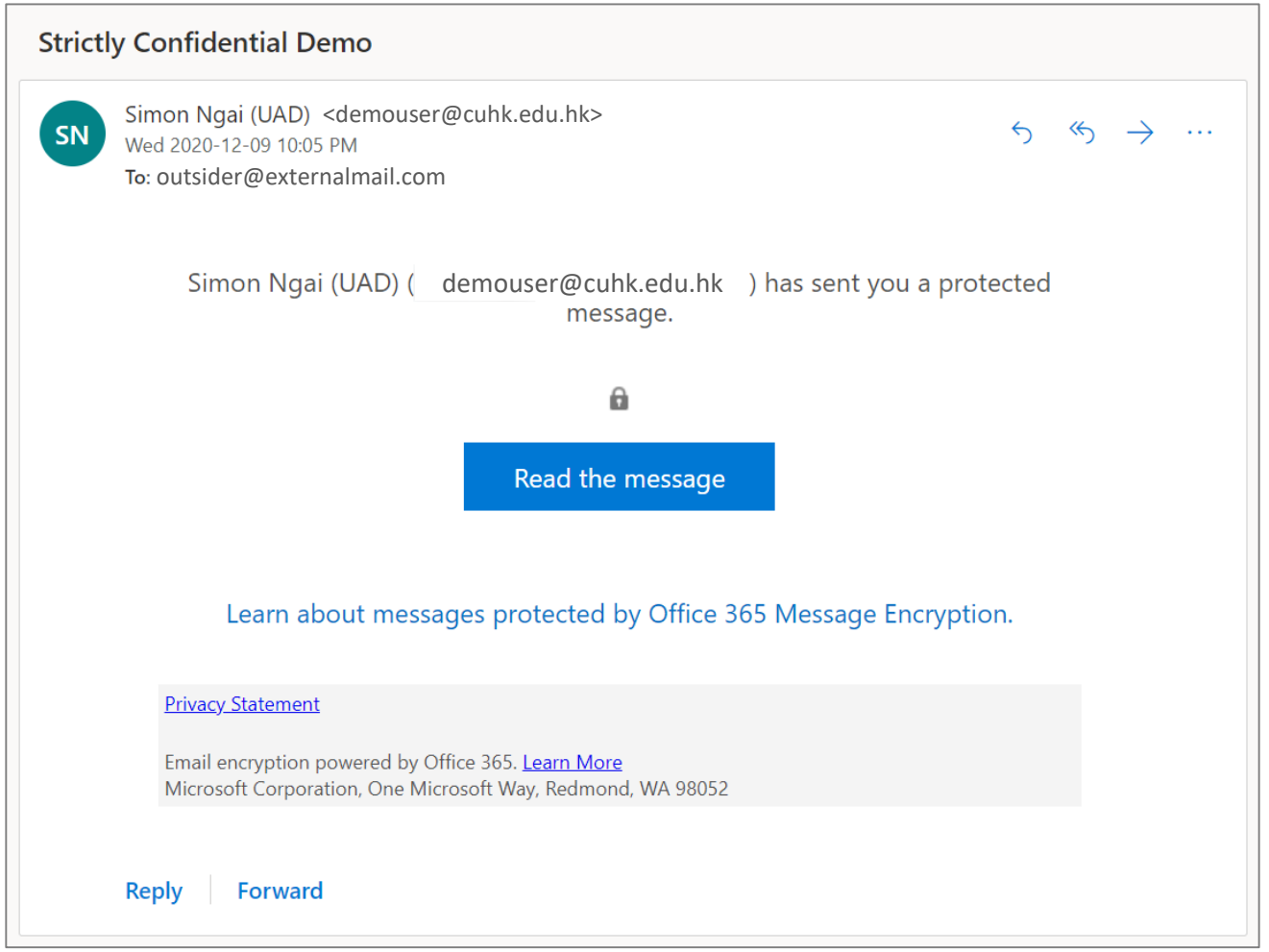
Send Protected Email (Tips)

- Put #confidential and #strictlyconfidential hashtag in your email subject to achieve the same result



Read Protected Email (by Outsider)

- In case sender send out the email to a non-CUHK email address, outsider won't have access to the protected email.



Start Protect Your Documents TODAY!

Demo

Create Protected Documents

- Word
- PDF

View Protected Documents

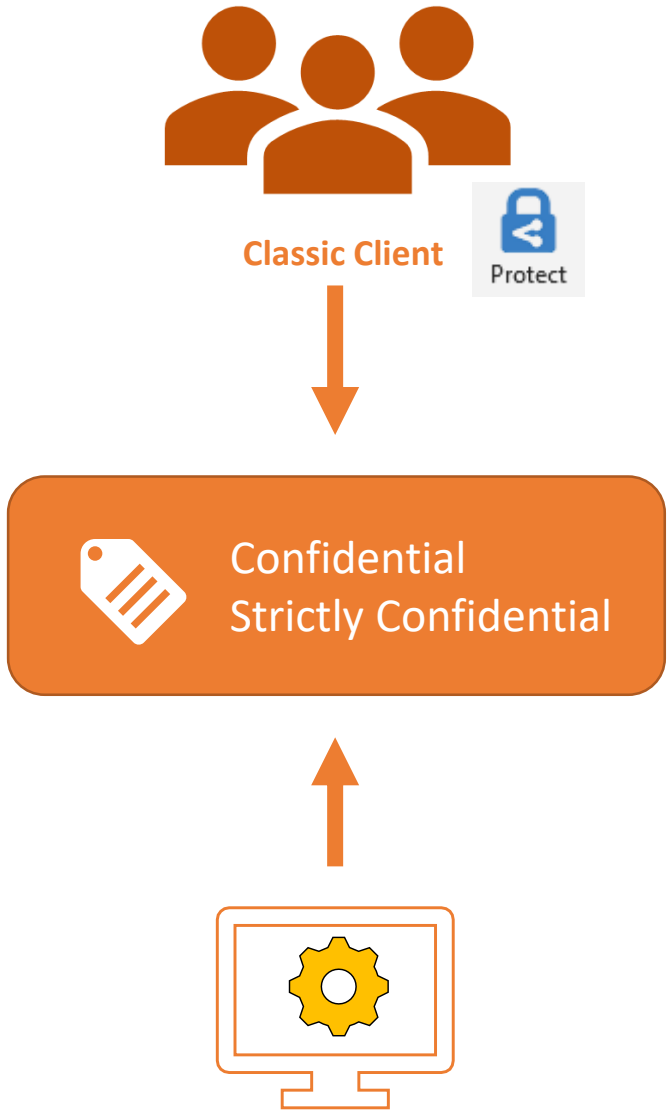
- By CUHK Staff
- By Outsiders

Send Protected Email

View Protected Email

- By CUHK Staff
- By Outsiders

Migrate from Classic Client to Unified Labeling Client



Classic Client (v1)

Based on Azure Information Protection

- ✓ Word / Excel / PowerPoint Desktop
- ✓ Outlook Desktop

- × Word / Excel / PowerPoint Mobile (Requires AIP viewer)
- × Outlook on the web
- × Acrobat Reader

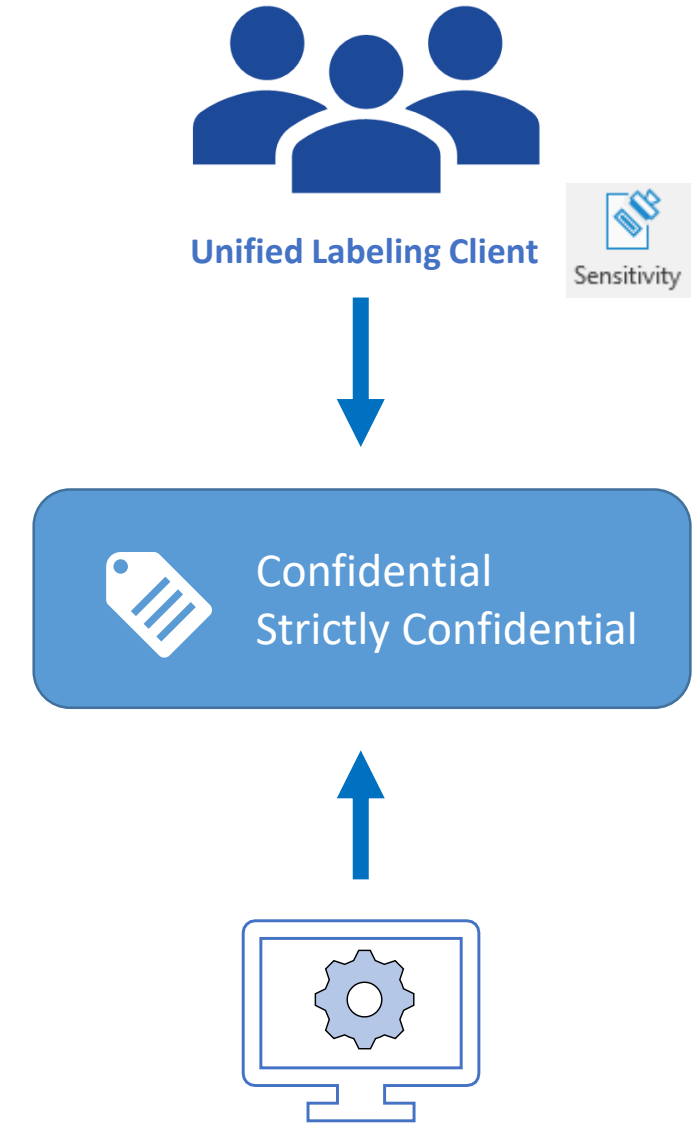
Source: Announcing timelines for sunsetting label management in the Azure portal and AIP client (classic) - Microsoft Tech Community
Source: Understanding Unified Labeling migration - Microsoft Tech Community

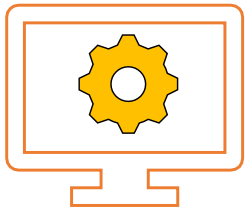
Unified Labeling Client (v2)

Based on Microsoft 365 Security and Compliance Center

- ✓ Word / Excel / PowerPoint Desktop
- ✓ Outlook Desktop
- ✓ Word / Excel / PowerPoint Mobile
- ✓ Outlook Mobile
- ✓ Office for the web (coming soon)
- ✓ Outlook for the web
- ✓ Power BI Data protection
- ✓ Apps based on Microsoft Information Protection SDK (e.g. Adobe Acrobat)

Source: Announcing timelines for sunsetting label management in the Azure portal and AIP client (classic) - Microsoft Tech Community
Source: Understanding Unified Labeling migration - Microsoft Tech Community





Azure Portal

Label Management in Azure Portal will no longer available after 31 Mar 2021

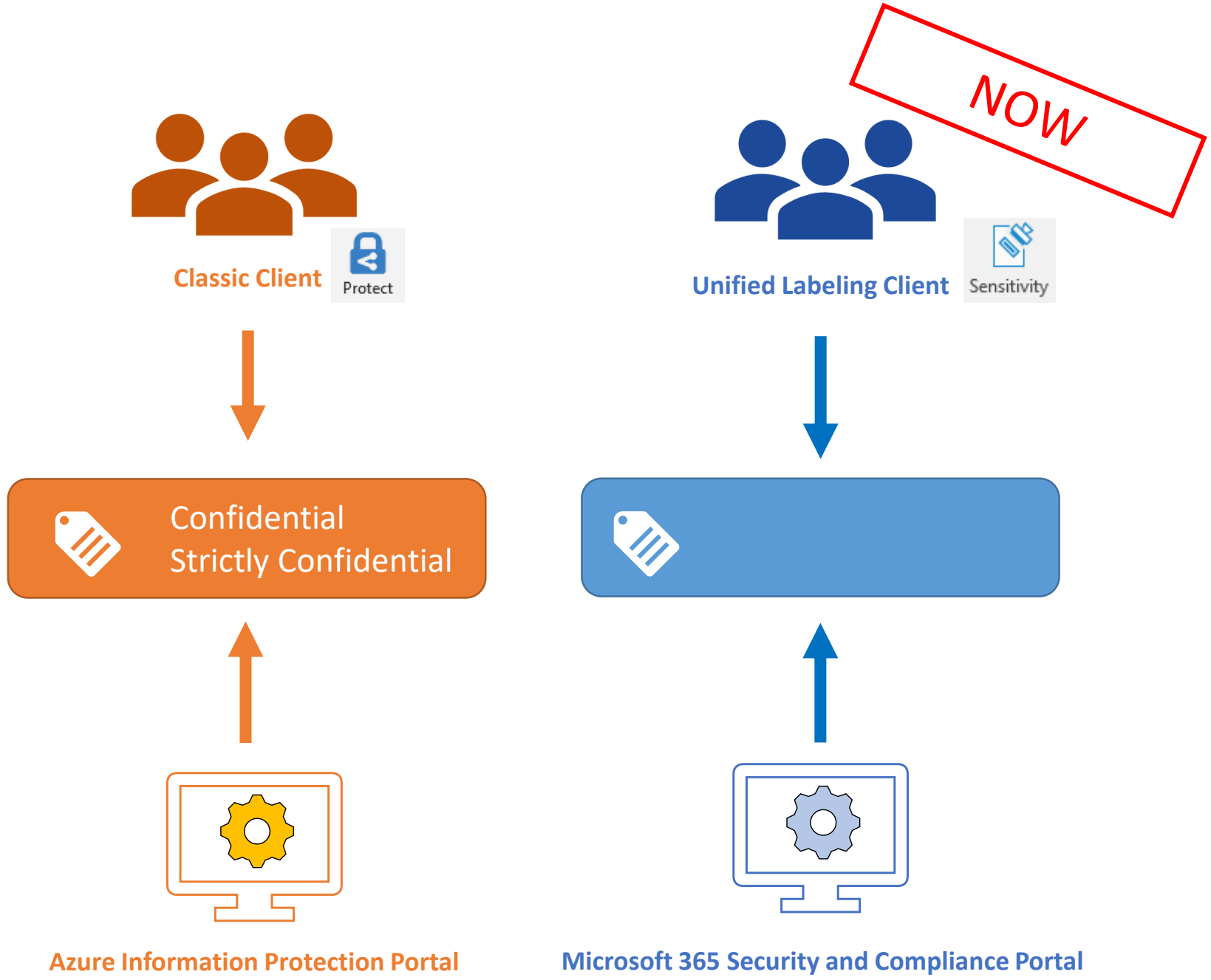
Classic Client

Classic client will no longer work after 31 Mar 2021

Migration Anatomy

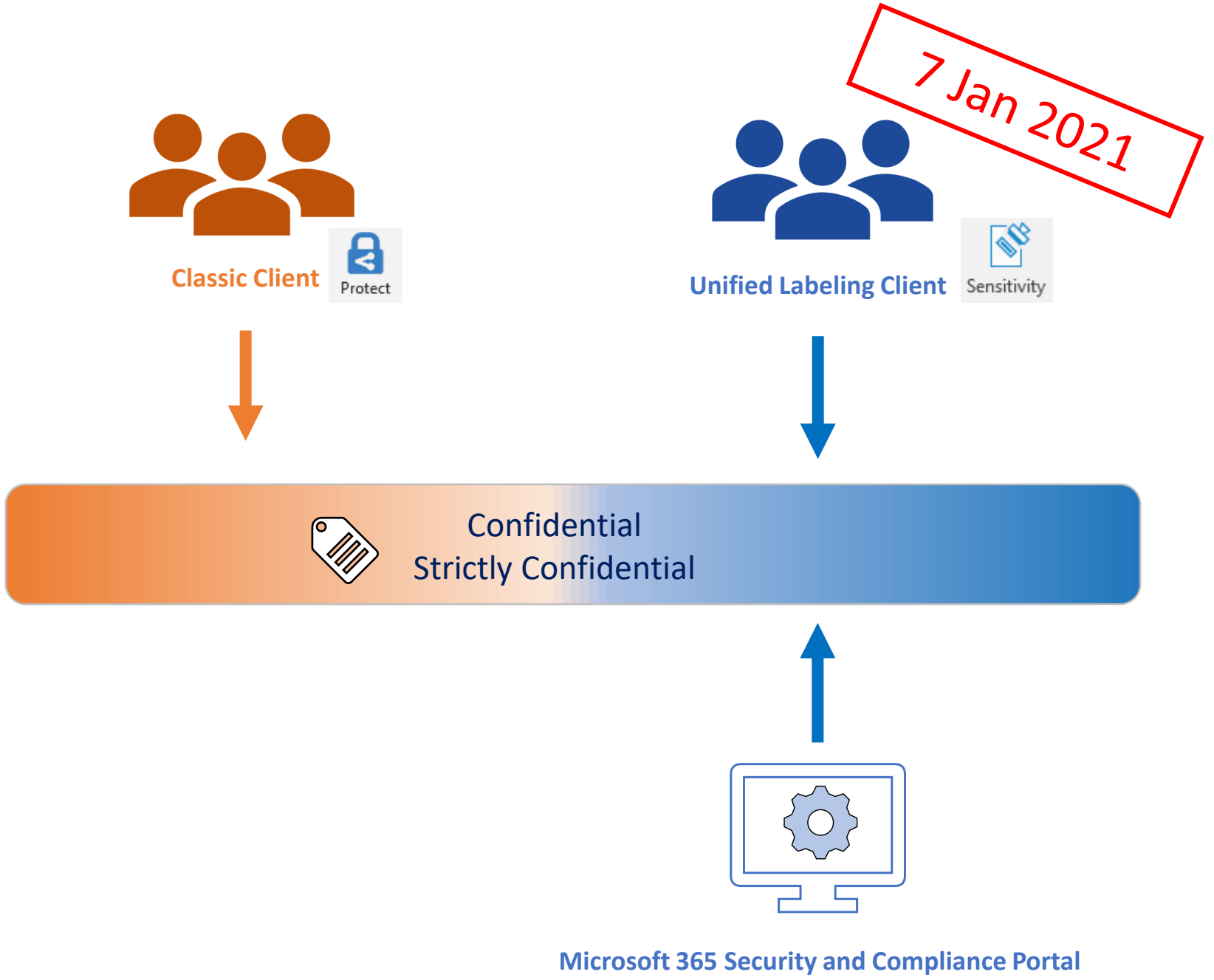
Stage 1
(Now – 6 Jan 2021)

- Preparation work by ITSC.
- You: No action needed – apply document protection as usual.



Stage 2
(7 Jan – 31 Mar 2021)

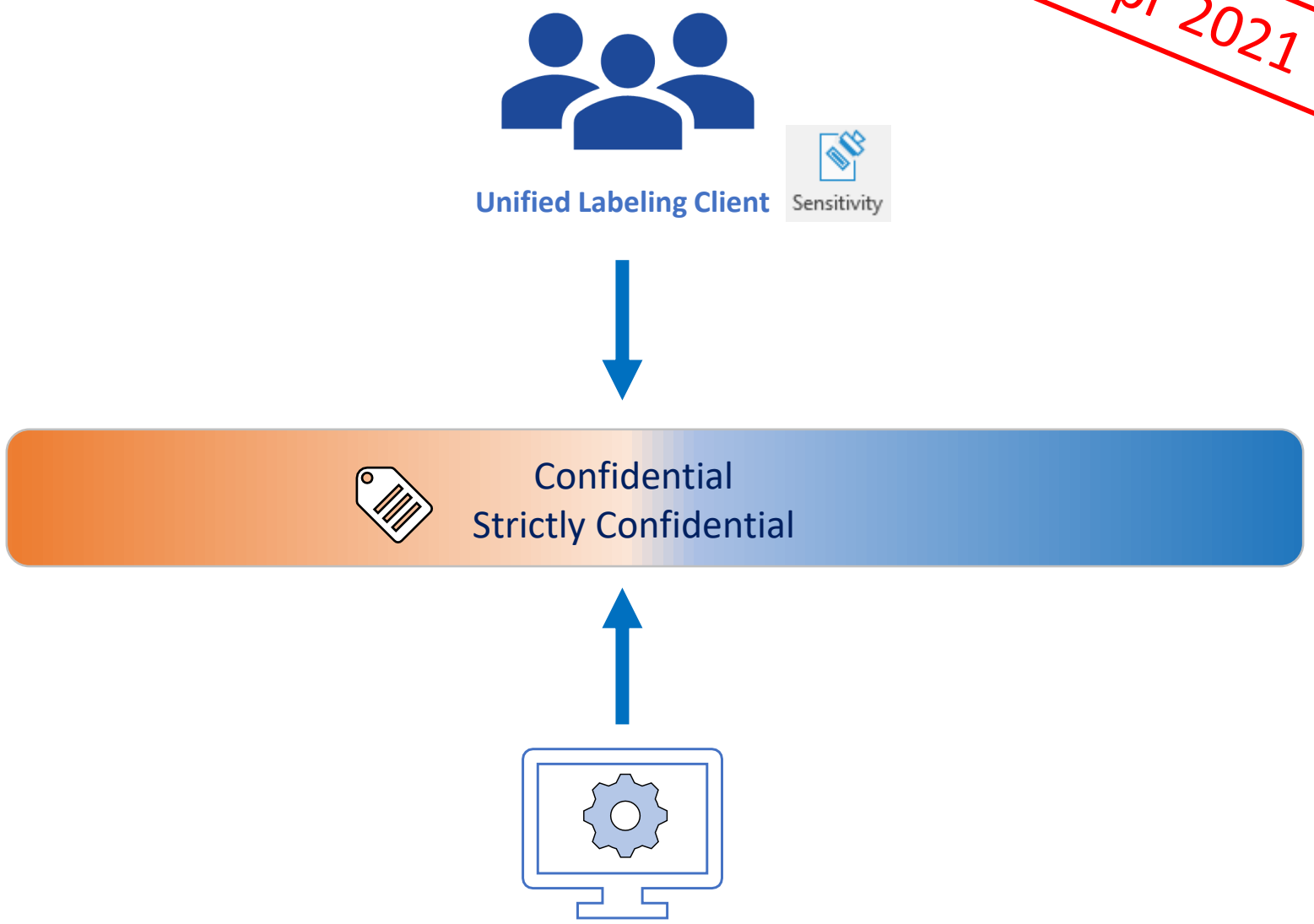
- Transition period. User should upgrade to Unified Labeling client.
- Protected documents created by either client can be opened by the other.



Stage 3
(1 Apr 2021 onwards)

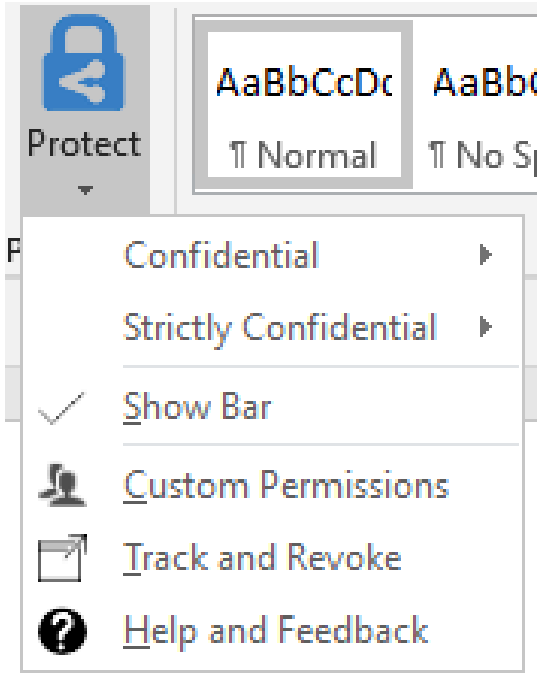
- Users are expected to read and create protected contents using Unified Labeling (i.e. new) client.
- Files protected using Classic client can still be opened.

1 Apr 2021

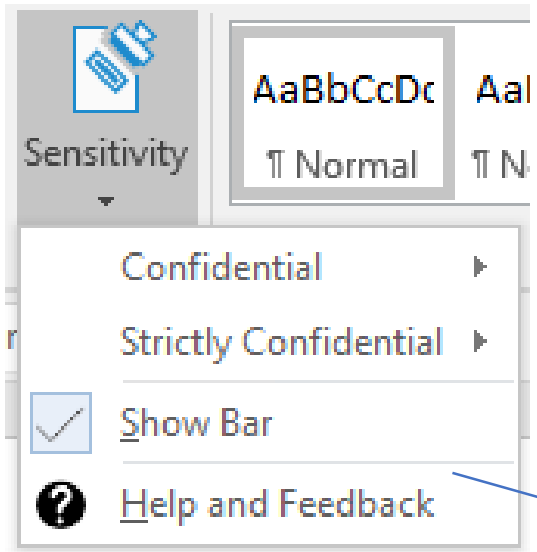


Major Changes in Unified Labeling Client

Major Changes in Unified Labeling Client



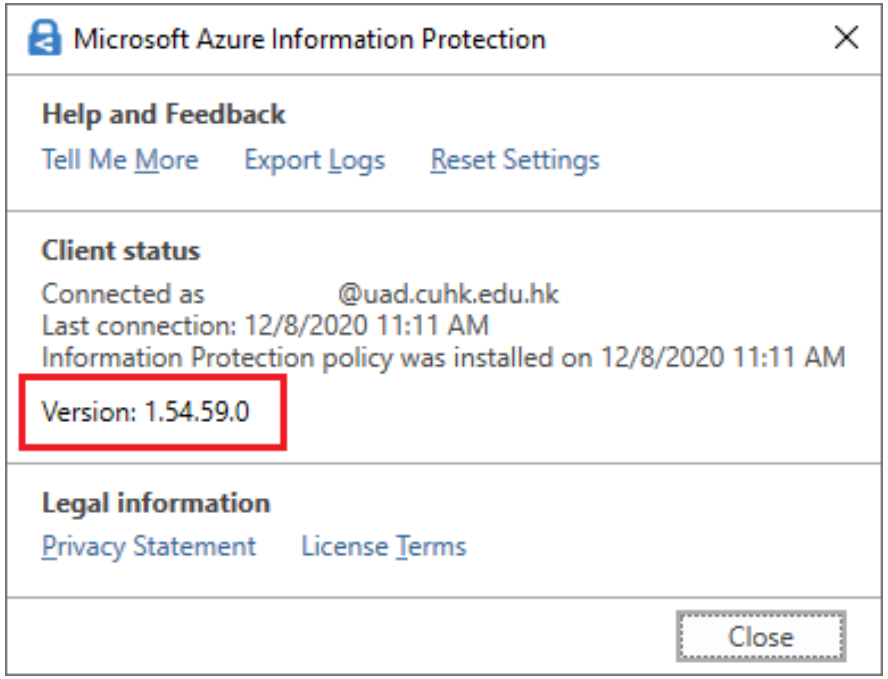
Classic Client



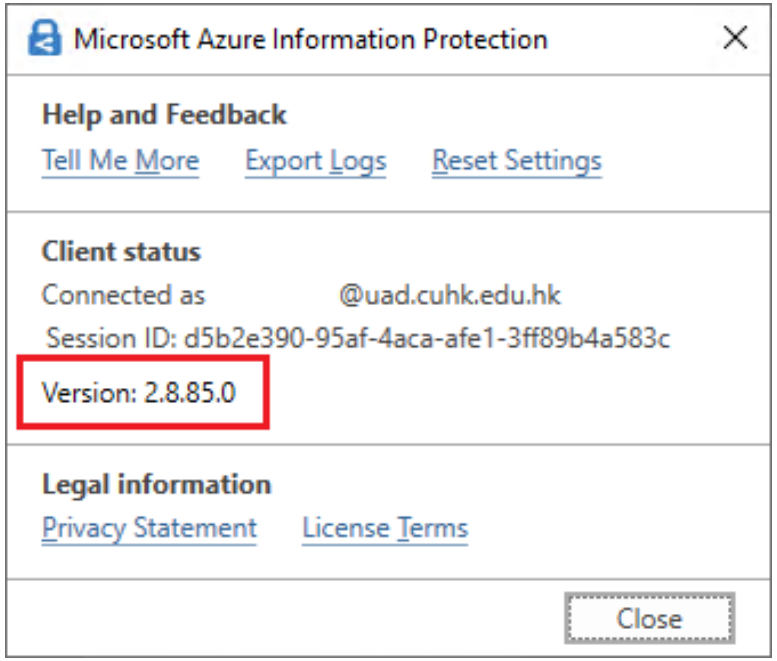
‘Custom Permissions’ no longer accessible from Office app
‘Track and Revoke’ is no longer supported

Unified Labeling Client

Major Changes in Unified Labeling Client



Classic Client

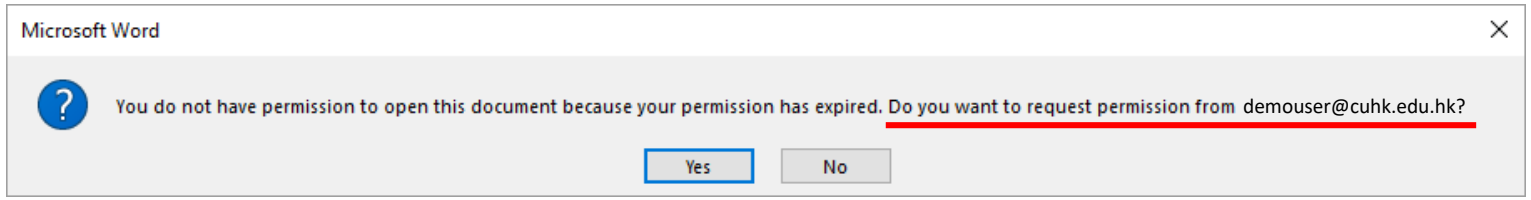


Unified Labeling Client

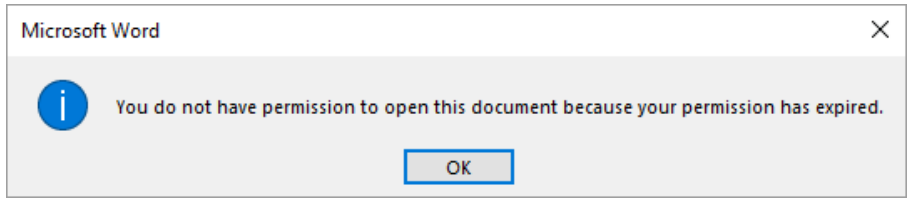
Major Changes in Unified Labeling Client

Feature	Description
Creation of protected PDF files using .ppdf extension	• PDF files are protected using ISO standard (i.e. using .pdf extension) • Still be able to read .ppdf files
Display of the user identity that applied the protection	• Not planned in Unified Labeling client

Classic

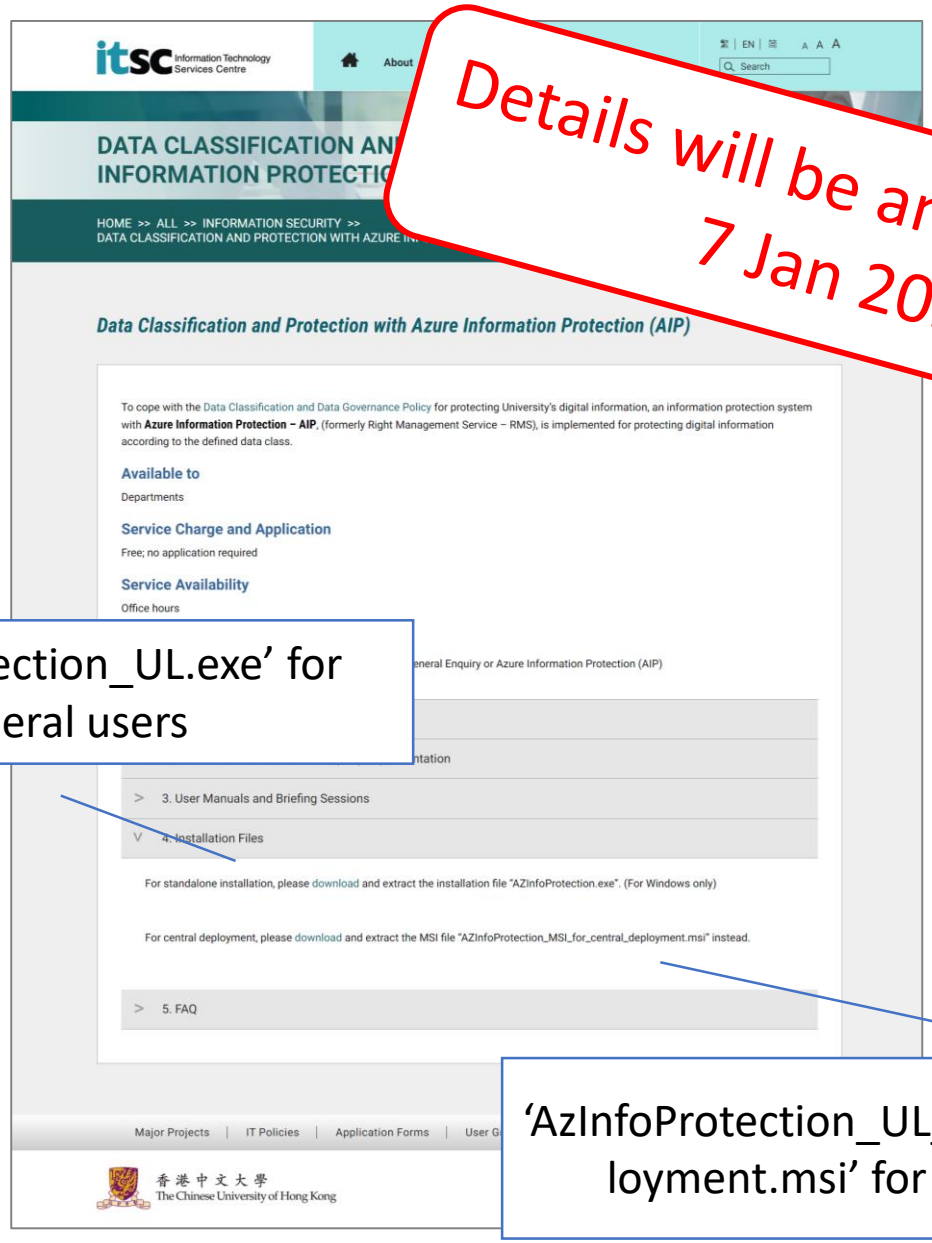


Unified



Source: [The client for Azure Information Protection - AIP | Microsoft Docs]

Installing Unified Labeling Client



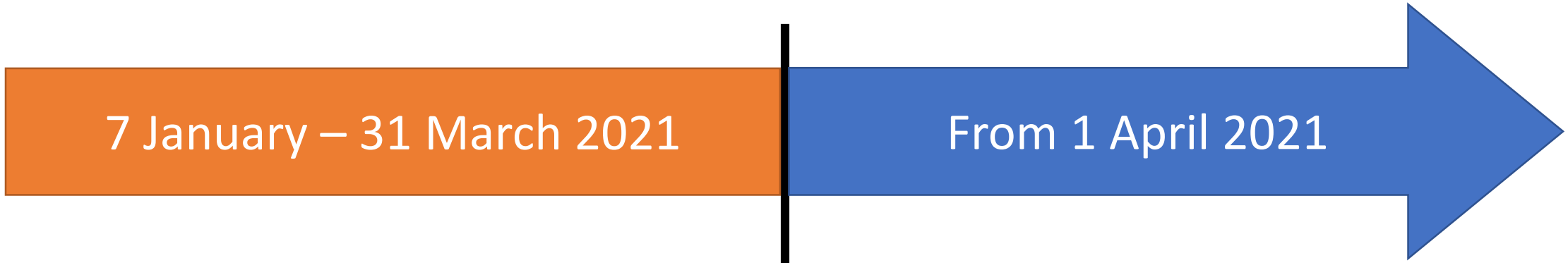
Details will be announced by 7 Jan 2021

'AzInfoProtection_UL.exe' for general users

'AzInfoProtection_UL_MSI_for_central_deployment.msi' for mass deployment

ITSC Website > Services > Information Security > Data Classification and Protection with Azure Information Protection (AIP)

Migration Timeline Recap



- Users who need to create / frequently access protected documents should upgrade their IP client starting 7 Jan 2021.

- Users must use Unified Labeling (new) client to create and open protected documents.
- Documents created by Classic Client could still be opened by Unified Labeling client.
- All AIP (old) clients should be removed.


Questions ?

Frequently Asked Questions

1. Can a protected document be created using a Project Account ?
   - AIP service is also enabled for project accounts.
   - When a protected document is sent to project account (via email), users can open the protected document using his / her user identity.

Frequently Asked Questions

2. My faculty member used to forward all University emails to his/her personal email (e.g., Gmail). Does AIP also work in this scenario?
   - Protected email does NOT work (requires @cuhk.edu.hk mailbox).
   - Protected attachment that included in an unprotected email works. Please be reminded that to view the protected document, users are required to either (1) install latest AIP viewer or, (2) from 7 Jan 2021 onwards, open the protected file using Office 2019/Office365.

Frequently Asked Questions

Starting
7 Jan 2021

3. Can I send a message to student / alumni / vendor and don't allow them to forward it?
   - This is an advanced topic, achievable using Outlook on the web only and available on or after 7 Jan 2021.
   - CAUTION: do not mix up with 'labels' which is targeted to CUHK staff

Label / Custom Security Level	Target	Read	Copy	Forward	Open by Outsider
Label: Strictly Confidential – All Staff	CUHK Staff (@cuhk.edu.hk)	Yes	No	No	No
Label: Confidential – All Staff	CUHK Staff (@cuhk.edu.hk)	Yes	Yes	Yes	No
Encrypt	Specific recipient	Yes	Yes	Yes	Yes (using OTP*)
Do Not Forward	Specific recipient	Yes	No	No	Yes (using OTP*)

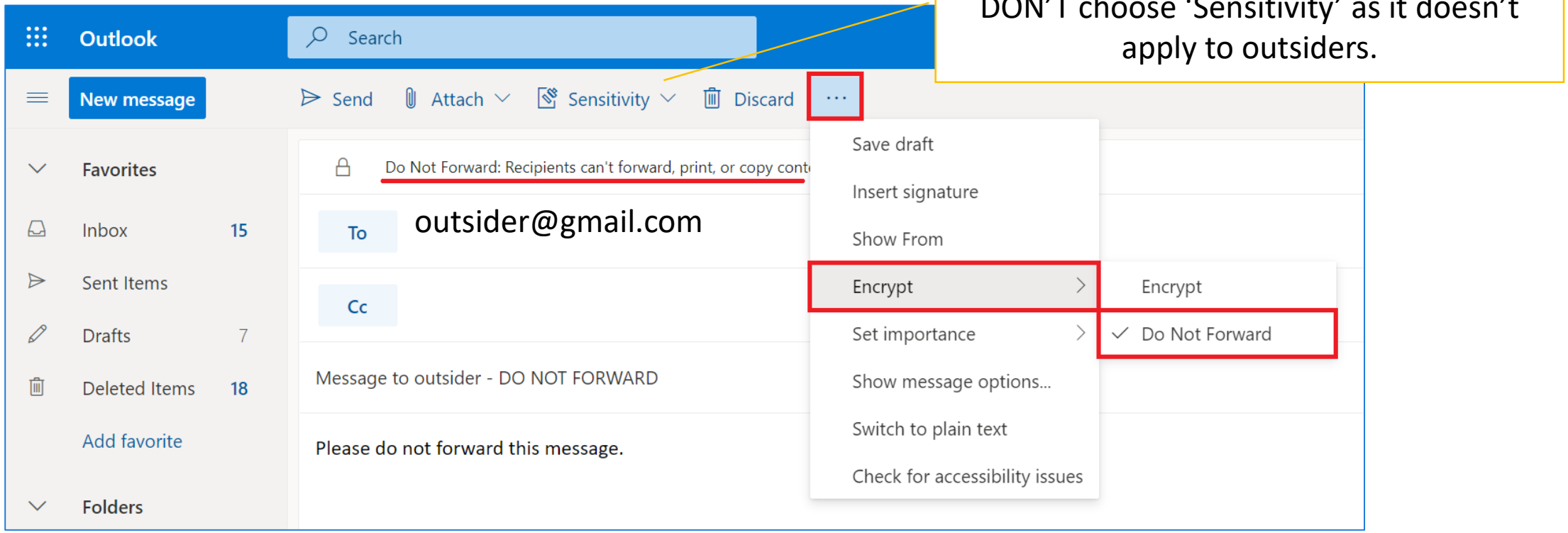
* One-time passcode

Starting
7 Jan 2021

Frequently Asked Questions

3. (Continued)
   - Compose a message in Outlook on the web. Click ellipsis (…) button > Encrypt > Do Not Forward.

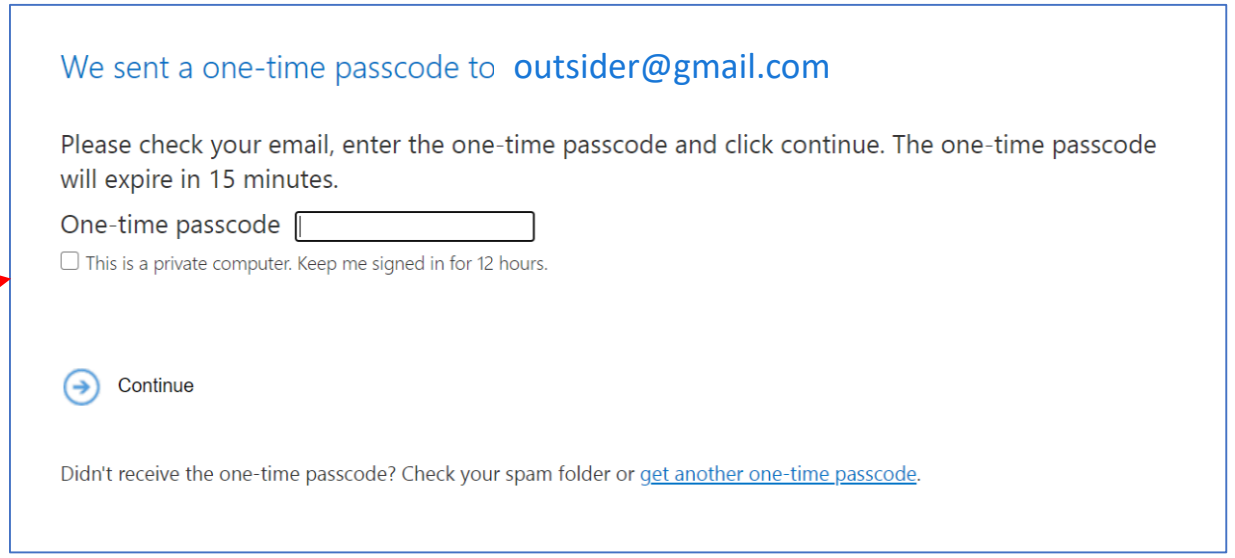
DON'T choose 'Sensitivity' as it doesn't apply to outsiders.



Starting
7 Jan 2021

Frequently Asked Questions

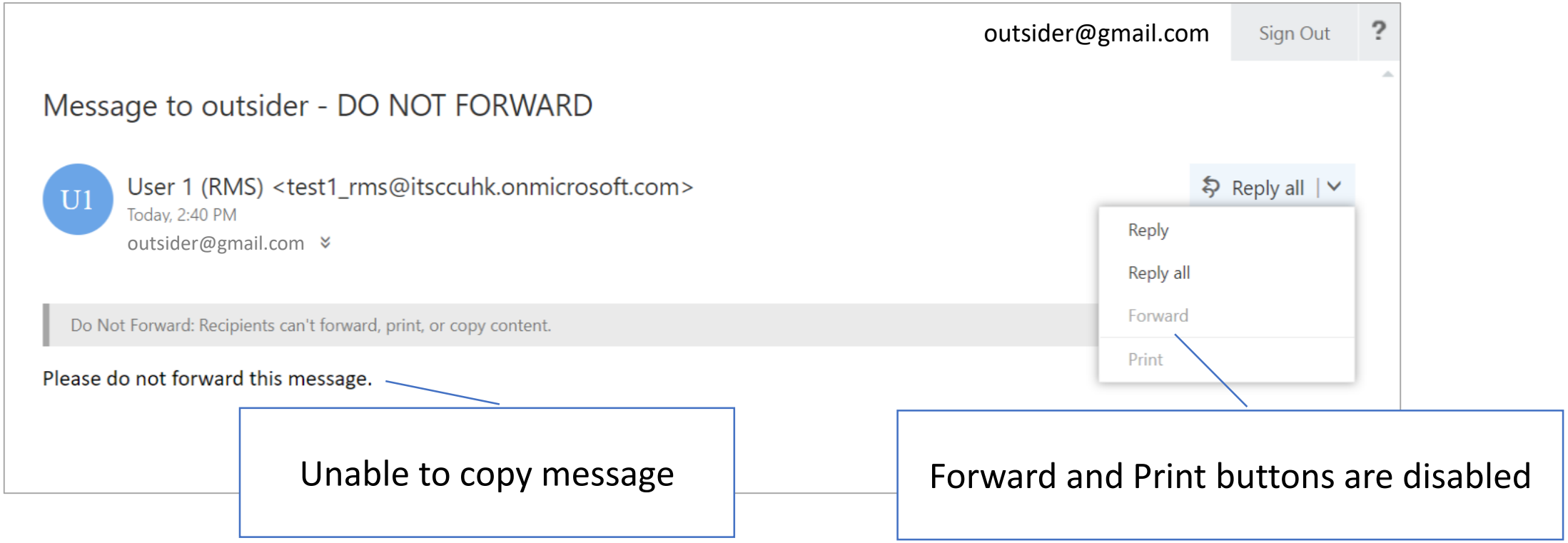
3. (Continued)
   - Recipient will be asked to enter a one-time passcode. The code will be sent to user's mailbox as soon as 'Read the message button' is clicked.



Frequently Asked Questions

Starting
7 Jan 2021

3. (Continued)
   - Outsiders will see the message upon successful validation. Note Forward and Print buttons are disabled.



Appendix 1: Possible User Scenario (since 7 January 2021)

	Scenario	Changes / Impact
1	Office 2016 AIP classic client NOT installed	No Change
2	Office 2016 AIP classic client installed	No Change
3	Office 2019 / Office 365 AIP classic client NOT installed	No Change if user don't sign in Office. After signed in Office 365, • "Sensitivity" button will be shown • No more "Track and Revoke" function • The function "Custom Permission" will disappear under "Sensitivity" button.
4	Office 2019 / Office 365 AIP classic client installed	No Change
5	OWA Email Encryption	• The change applies to ALL users, NOT depending on AIP client version. • All the 2 labels are available under the "Sensitivity" button. • "Encrypt" and "Do Not Forward" is moved under "… > Encrypt"

Appendix 2: Summary of Changes in Office Add-in and AIP Bar

(A): Stage 1 / (B) : Stage 2
AIP = Class (old) client / MIP = Unified Labeling (new) client

	Conditions	"Protect" button (Related to AIP client)	"Sensitivity" button (No Track and Revoke function) (Related to Unified Labeling)	AIP Bar (Related to AIP classic client or AIP unified client)
1	Office 2016, NO AIP client	(A) No (B) No	(A) No (B) No	(A) No (B) No
2	Office 2016, installed AIP classic client	(A) Yes (B) Yes	(A) No (B) No	(A) Yes (B) Yes
3	Office 2016, installed MIP unified labeling client	(A) No (B) No	(A) Yes (Sign in O365 but return Error Message: "Something went wrong while downloading your template.") (B) Yes (Sign in O365 during client installation)	(A) No (B) No (default) Yes (User need to click "Sensitivity" > "Show Bar" to make it visible.)
4	Office 2019 and Office 365, NO AIP/MIP client	(A) No (B) No	(A) No (B) No (default) / Yes (After sign in O365)	(A) No (B) No
5	Office 2019 and Office 365, installed AIP classic client	(A) Yes (B) Yes	(A) No (B) No	(A) Yes (B) Yes
6	Office 2019 and Office 365, installed MIP unified labeling client	(A) No (B) No	(A) Yes (Sign in O365 but return Error Message: "Something went wrong while downloading your template.") (B) Yes (Sign in O365 during client installation)	(A) No (B) No (default) Yes (User need to click "Sensitivity" > "Show Bar" to make it visible.)
7	OWA Email Encryption		(A) "Encrypt" button (B) All the 2 labels are available under the "Sensitivity" button. Also, "Encrypt" and "Do Not Forward" is moved under "… > Encrypt"	