



# **HKSCC CCASS/ VaR Online/ RAP Installation Procedures**

Version: 7.1

Date: March 2025

## Modification History

Version	Date	Modified By	Synopsis
1.0	May 2021	HKSCC	First issue
2.0	Jun 2021	HKSCC	Updated the following <ul style="list-style-type: none"> <li>• section 4.6 IP addresses of VaR Online</li> <li>• section 5.10 new section on TLS Connection Settings</li> </ul>
3.0	Mar 2022	HKSCC	<ul style="list-style-type: none"> <li>• Updated for replacing IE 11 by MS Edge as the supported browser of C3T(Section 5.3 to Section 5.10)</li> <li>• Added support of smartcard reader model IDBridge CT30</li> <li>• Added support of Google Chrome version for VaR Online</li> </ul>
4.0	Aug 2022	HKSCC	<ul style="list-style-type: none"> <li>• Updated support of Google Chrome version for VaR Online</li> <li>• Remove support of Internet Explorer 11</li> </ul>
5.0	Mar 2023	HKSCC	<p>To prepare for launch of 2FA for CCASS Terminal</p> <ul style="list-style-type: none"> <li>• Section 4.7 for CCASS and add Section 4.9</li> <li>• Installation of Smartcard reader and Smartcard Client software will not be required after 2FA enablement</li> <li>• Updated support of Google Chrome version for VaR Online</li> </ul>
6.0	Jul 2023	HKSCC	After 2FA enablement, the requirement of Smartcard reader and Smartcard Client software and their installation procedures are removed.
7.0	Apr 2024	HKSCC	Updated support of Google Chrome version for VaR Online
7.1	Mar 2025	HKSCC	<p>Rename to HKSCC CCASS/VaR Online/RAP Installation Procedures</p> <p>Support Windows 11 for CCASS Terminal and VaR Online and update PC requirements</p> <p>Add CCASS/CCMS report access for Participants and DBs to RAP</p>

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# 1 OVERVIEW

## 1.1 Background

This document serves as a CCASS technical guide for HKSCC's Participants other than Investor Participants ("Participants") and Designated Banks (DBs) to install and configure their PC terminals to access CCASS via SDNet. Section 2 provides a summary of system requirements, while sections 3 & 4 documented the communication line & network setup requirement.

*HKSCC Participants and DBs* should refer to Section 5 for the hardware, software requirements and configuration for installing CCASS Terminals and should also access to Report Access Platform (RAP) for CCASS, CCMS and risk-related<sup>1</sup> reports. Respective requirements are documented in Section 6.

HKSCC Participants should also access to VaR Online for margin & stress test simulation purposes. Respective requirements are documented in Section 7.

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<sup>1</sup> CCMS and risk-related reports are not applicable to DBs

## 2 System Requirements

### 2.1 PC Configuration Requirements

Highlighted below are the minimum PC configurations for CCASS Terminals and VaR Online (not applicable to DBs). There is no minimum PC configuration requirements for RAP.

Item	CCASS	VaR Online
<b>CPU</b>	1GHz	2.4GHz
<b>Memory</b>	4GB	8GB
<b>Harddisk</b>	64GB	64GB
<b>Operating System</b>	Win 11 Pro (64 bit) <sup>2</sup>	Win 11 Pro (64 bit)
<b>Browser</b>	MS Edge <sup>3</sup> version 94 or above	Google Chrome <sup>4</sup>
<b>Java Plugin<sup>5</sup></b>	Oracle JRE 8u441 <sup>6</sup> (both x86 and x64)	N/A
<b>Software</b>	<ul style="list-style-type: none"> <li>• Anti-virus</li> </ul>	<ul style="list-style-type: none"> <li>• Anti-virus</li> </ul>
<b>Bandwidth<sup>7</sup></b>	1Mbps	1Mbps

<sup>2</sup> Existing *Windows 10 Pro* version will be supported until Microsoft ends its support by October 14, 2025

<sup>3</sup> With Internet Explorer Mode enabled for CCASS/3 Terminal website

<sup>4</sup> Please install Google Chrome version 130.0.6723.117 for VaR Online. The version for VaR Online will in general be aligned with HKATS

<sup>5</sup> Java Plugin will become optional after CCASS/CCMS reports are available for download via RAP from mid-July 2025. It is only required for downloading CCASS/CCMS reports from CCASS Terminal Report Download function. JRE is not required for downloading CCASS/CCMS reports via RAP.

<sup>6</sup> One needs proper license subscription to download Oracle JRE 8u441. Please refer to details on (<https://www.oracle.com/java/java-se-subscription.html>) about Oracle Java SE Desktop subscription. And then download Oracle JRE 8u441 from (<https://www.oracle.com/java/technologies/javase/javase8u211-later-archive-downloads.html>).

<sup>7</sup> Minimum requirement, CP should assess and evaluate its own bandwidth requirement based on their business needs.

## 2.2 Computer Virus/Worm Security Measures

Computer virus or worms are one of the concerns in security measure of computer system. Various security measures have been employed in the design of HKEX Systems, such as CCASS, RAP and VaR Online (not applicable to DBs) to protect it from computer virus or worms attacks. Participants and DBs are reminded that their PCs should be dedicated solely to accessing the CCASS, RAP or VaR Online services as uncontrolled access to the Internet will expose Participants' and DBs' PC to various security attacks from the Internet. Besides, there are other potential sources of computer virus or worms e.g. use of external storage device for uploading or downloading information.

In view of the above, users should pay attention and take proactive action to the security measures in their own PCs or equipment for CCASS, RAP or VaR Online services in the following two areas:

### **Virus protection**

Participants and DBs are recommended to install anti-virus software on their dedicated PCs for accessing CCASS, RAP and VaR Online, if applicable and regularly update the virus definitions from the vendor. For dedicated PCs not connected to the Internet, in some case, the vendor may make available the definition files daily in the Internet for download. Participants and DBs may download the updated virus definition file with a PC with Internet access, save the file in a disk or flash disk and install the update to their dedicated PCs.

### **Microsoft OS patch**

Participants and DBs are also advised to regularly review the latest Microsoft security patches and install them on their dedicated PCs accordingly. CPs and DBs may subscribe to Microsoft technical security notifications to keep up to date about security vulnerability and patches available: (<https://www.microsoft.com/en-us/msrc/technical-security-notifications>)

For dedicated PCs not connected to the Internet, Microsoft security patches can be downloaded from Microsoft Download Center (or Microsoft Update Catalogue) separately with a PC with Internet access. Participants and DBs may then save the file in a disk or flash disk and install the patch at the dedicated PCs.

Sample Procedures:

1. Go to Microsoft Download Center: <https://www.microsoft.com/download> or Microsoft Update Catalogue: <https://catalog.update.microsoft.com>
2. Search a particular security patch with the Security Bulletins Number (e.g. MS08-078) or Knowledge Base (KB) Articles number. (e.g. KB960714) that appears in the security notification.
3. Follow the instructions to download and save the file to disk or flash disk.
4. Use the disk or flash disk to install the patch on the dedicated PCs. The patches may be in different formats, please follow Microsoft's instruction to install the patches.

**PROHIBITED ACTIONS ON HKEX SYSTEM:**

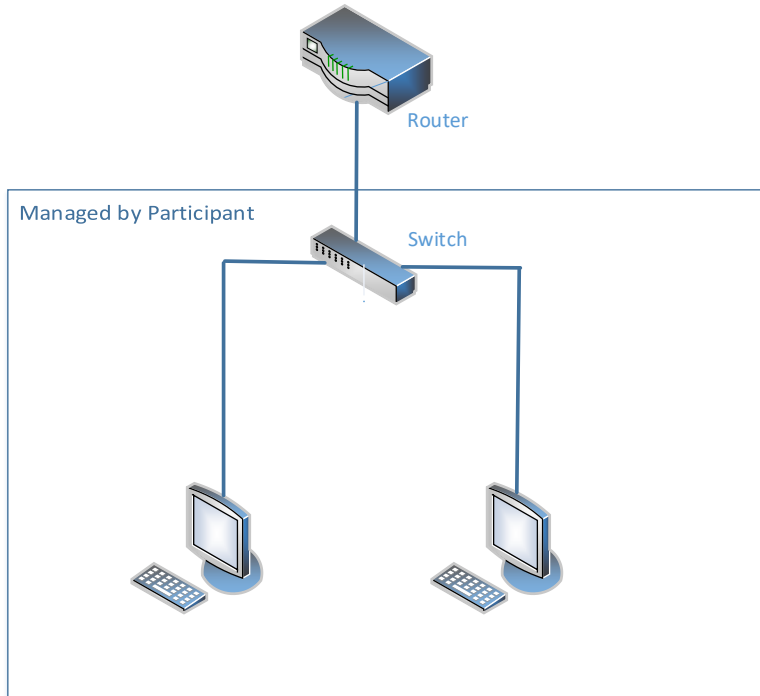
Participants and DBs must not perform any unauthorized access or security scanning (no matter at network, system or application level) on HKEX systems and any related network device not owned by them. Any such attempt will be regarded as illegal access or malicious intrusion and their access to HKEX systems may be suspended at emergency situation.

### 3 Communication Line Setup

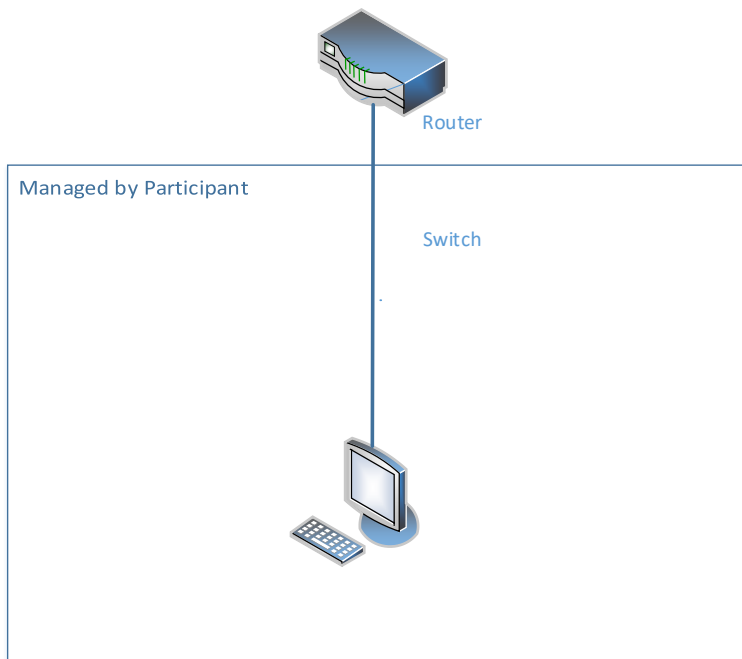
#### 3.1 Connect PC Terminal with Router

Ensure the SDNet line and router are installed and configured properly by the vendor and connect the PC to switch/router with a LAN cable. There are 3 possible options to establish the connection.

##### **Option 1: Single Link Connection**

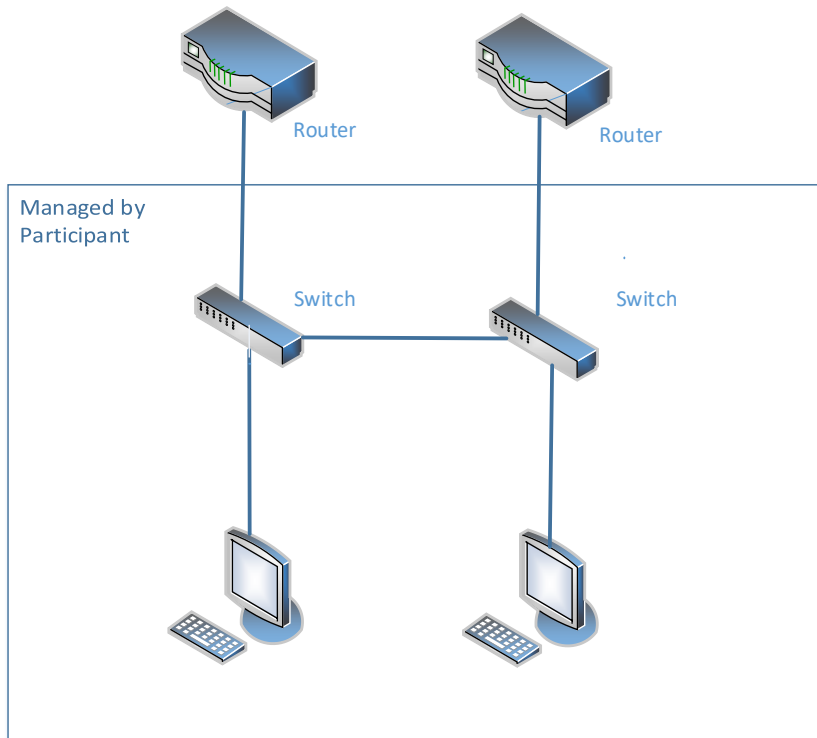


##### **Option 2: Single Link Connection with Direct Connection to Router**





**Option 3: Dual Link Connection**



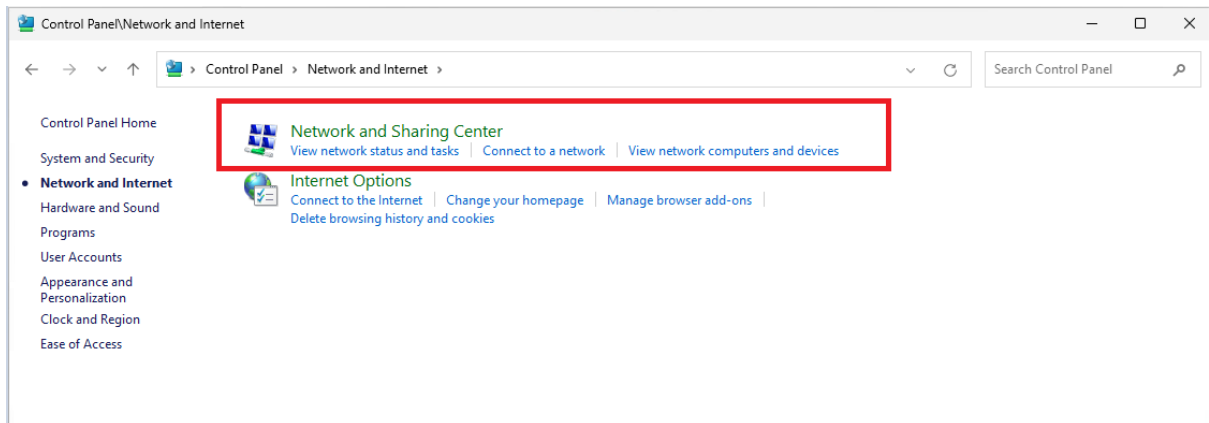
To maintain robustness, Participants and DBs should establish contingency plan and build in resilience to cope with emergencies and disruptions in their clearing and settlement operations. The contingency plan should include suitable backup arrangements to prevent single points of failure from disrupting their operations such as dual link connections (Option 3), backup site for remote operations/communications facilities.

## 4 Network Setup

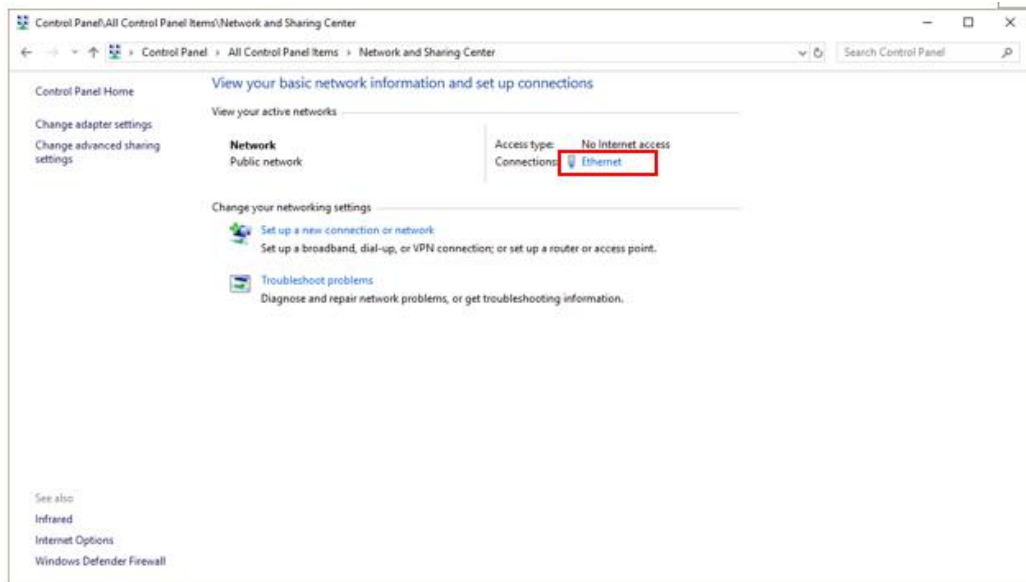
The network configurations is common for CCASS, RAP and VaR Online (not applicable to DBs); please follow procedures below for the PC setup.

### 4.1 Windows IP address Configurations

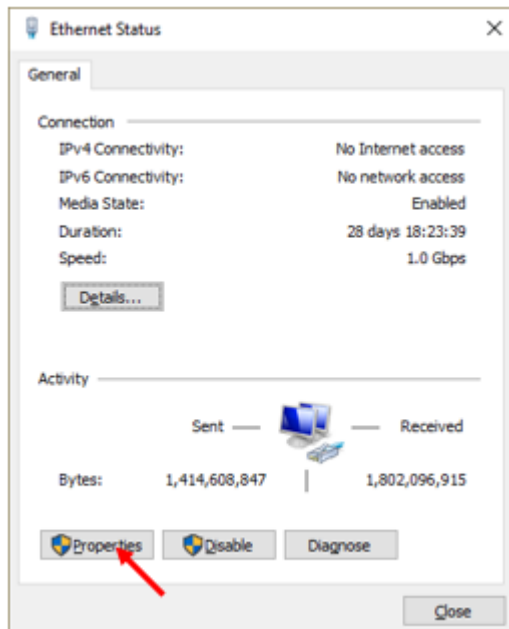
1. To configure TCP/IP for the WAN Router & Ethernet Card Connection, you need an “administrator” account. Please ensure you have the appropriate access right.
2. Click “Search” and input “Control Panel”
3. Select “Control Panel”
4. Click on "Network and Sharing Centre"



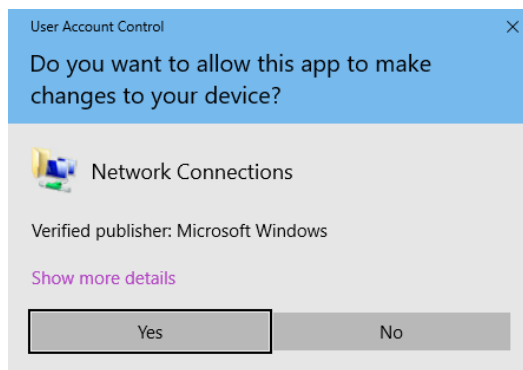
5. Click “Local Area Connection” or ”Ethernet” under “View your active networks”



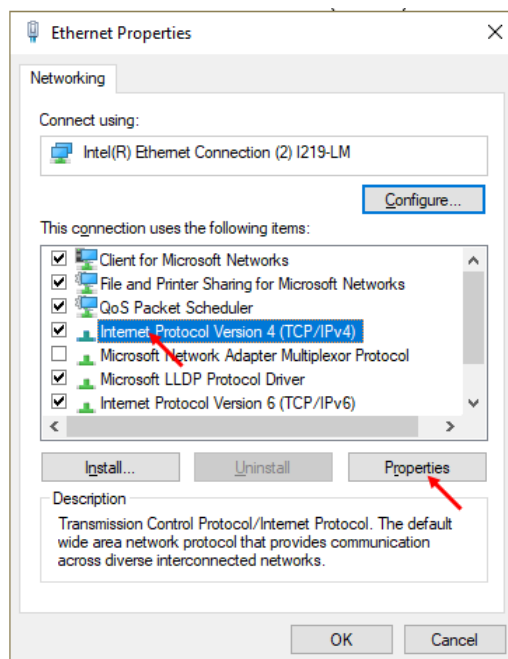
6. Click “Properties”



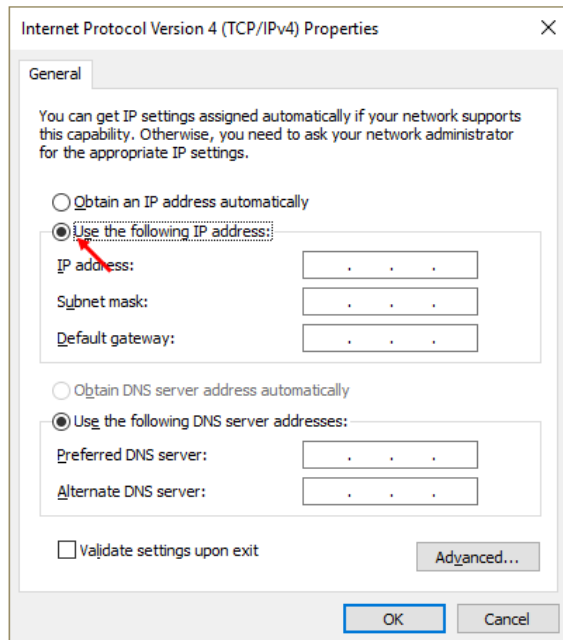
7. Click “Yes” in for alert message.



8. Check “Internet Protocol Version 4 (TCP/IP)” and click “Properties”.



9. Select "Use the following IP address" radio button.



10. Enter the "IP Address" and the "Subnet Mask" with the IP Address and Subnet Mask given by vendor according to the "IP Address Allocation Guidelines" below:-

**a. 10.1xx.x.11 ~ 10.1xx.x.120 (for Gateway ending with .1)**

<i>CCASS, RAP, VaR Online:</i>	10.1xx.x.11 - 10.1xx.x.100
<i>PG:</i>	10.1xx.x.101 - 10.1xx.x.120
<i>Reserved:</i>	10.1xx.x.0 - 10.1xx.x.10 10.1xx.x.121 - 10.1xx.x.127

**b. 10.1xx.x.139 ~ 10.1xx.x.248 (for Gateway ending with .129)**

<i>CCASS, RAP, VaR Online:</i>	10.1xx.x.139 - 10.1xx.x.228
<i>PG:</i>	10.1xx.x.229 - 10.1xx.x.248
<i>Reserved:</i>	10.1xx.x.128 - 10.1xx.x.138 10.1xx.x.249 - 10.1xx.x.255

11. Click "Gateway" tab, enter the Gateway IP Address given by vendor in the "Default Gateway"

12. Enter the DNS Server IP Addresses as stated in Section 4.2 for the "Preferred DNS Server" and "Alternate DNS Server"

13. Click "OK" button twice to save the changes

14. Restart the computer

## 4.2 DNS Servers

The Preferred Domain Name System (DNS) Server and Alternate DNS Server **MUST** be configured as below on PC.

Preferred DNS Server: 10.243.1.1 (CCASS Primary site)

Alternate DNS Server: 10.243.65.1 (CCASS Secondary site)

The URL or domain name for CCASS services are listed as below for reference.

1. CCASS – <https://www.ccass.com>
2. VaR Online – <https://rmcd.hkexposttrade.com.hk>
3. VaR DA Platform – <https://idm.hkexposttrade.com.hk/user-management/>

## 4.3 Disaster Recovery

During Disaster Recovery (DR) failover, Participants and DBs delegated PCs would rely on the Preferred and Alternate DNS server to resolve the URL to the corresponding IP address of DR site such that no change is required on the PC. Therefore, it is important for the PC to be configured with **both** Primary and Alternate DNS server IP addresses above.

In addition, it should be noted that DR failover could happen to any system individually or together. For instance, it may happen that only RAP need to be failed over to DR while CCASS and VaR Online remain intact with connection to primary site or vice versa. Nevertheless, it should be transparent to delegated PCs as HKEX DNS will resolve to DR site IP address(es) for that particular system automatically after failover to DR connection. When that particular system resumed in PR site afterward, HKEX DNS will also automatically switch back to resolve the PR site IP address(es). All in all, it would be totally transparent to the PC if recommended DNS settings above is followed.

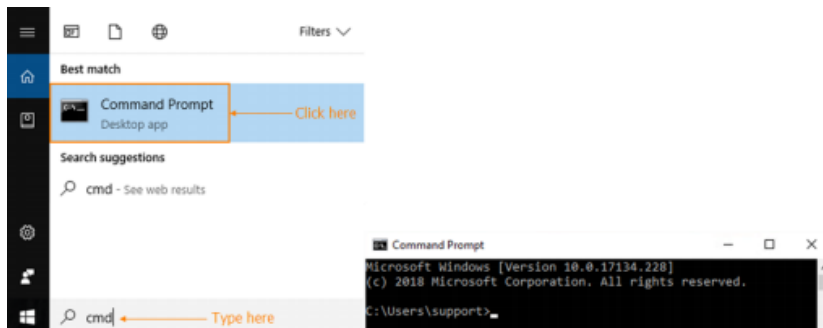
#### 4.4 Source IP Address

Each SDNet circuit is assigned with a pre-defined range of IP addresses. Participants and DBs should ensure that their own delegated PCs should appear with the same IP address as original in each connection. If there is any Network Address Translation (NAT) performed, CPs and DBs should be responsible and ensure the translated network addresses, if any, be translated back to the original IP address range (assigned by network vendor) or else login will fail due to IP address checking. In addition, NAT should be performed in a one-to-one mapping. That is, IP address of each delegated PC should be translated to a unique value within the original IP address range.

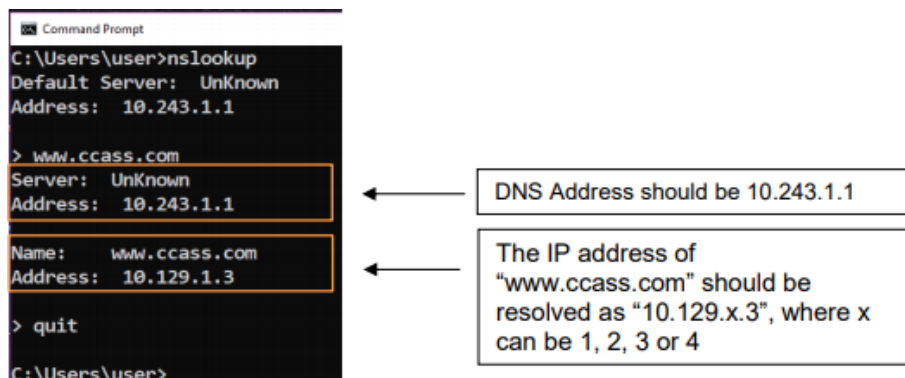
#### 4.5 DNS Settings Verification

Please follow steps below to verify your DNS settings after completion of DNS setup (section 4.2).

1. Go to Start and type cmd in the search field to open the command prompt



2. Type nslookup
3. Type www.cass.com and the query result from the Primary DNS should be displayed as follows



4. Repeat with other application URL in 4.2 above

5. Type quit to exit
6. Type nslookup – 10.243.65.1
7. Type www.ccass.com and the query result from the Alternate DNS should be displayed as follows

```

Command Prompt
C:\Users\user>nslookup - 10.243.65.1
Default Server: Unknown
Address: 10.243.65.1

> www.ccass.com
Server: Unknown
Address: 10.243.65.1

Name: www.ccass.com
Address: 10.129.1.3

> quit
C:\Users\user>
    
```

The same IP address of www.ccass.com in step 3 should be returned

8. Repeat with other application URL in 4.2 above
9. Type quit to exit and close the command prompt window
10. Please repeat the above verifications for all delegated PCs with CCASS and VaR Online connection

#### 4.6 Special Network Settings for PC not compliant to Standard Configurations

If the PC does not connect to CCASS DNS servers for name resolving or there is any additional access control like firewall in between the PC and CCASS services. Please follow sections below for additional configurations.

#### 4.7 CCASS Services to be accessed

Participants and DBs should ensure that the following services are accessible from PC to HKEX systems.

CCASS:

Services	IP Address/URL	Port No.	Description
DNS	10.243.1.1 10.243.65.1	UDP: 53	Domain Name Service
HTTPS	10.129.X.3 <sup>8</sup> www.ccass.com	TCP: 441, 442, 443	CCASS Web <sup>9</sup> (PR & DR)

<sup>8</sup> X could be 1, 2, 3 or 4 depending on the network segment of SDNet assigned by SDNet carrier. Please refer to DNS settings verification below to check the CCASS web IP for your SDNet line.

<sup>9</sup> The web IP address for CCASS is the same in both its Primary (PR) and Secondary/Disaster (DR) sites if via the same SDNet lines



HTTPS	10.243.2.15 sso.hkexposttrade.com.hk	TCP:443	CCASS 2FA Logon (PR) <sup>10</sup>
HTTPS	10.243.66.15 sso.hkexposttrade.com.hk	TCP:443	CCASS 2FA Logon (DR)

VaR Online (not applicable to DBs):

Services	IP Address/URL	Port No.	Description
DNS	10.243.1.1 10.243.65.1	UDP:53	Domain Name Service
HTTPS	10.243.2.32 rmcd.hkexposttrade.com.hk	TCP:443	VaR Online (PR)
HTTPS	10.243.66.32 rmcd.hkexposttrade.com.hk	TCP:443	VaR Online (DR)
HTTPS	10.243.2.15 sso.hkexposttrade.com.hk	TCP:443	VaR Logon (PR) <sup>11</sup>
HTTPS	10.243.66.15 sso.hkexposttrade.com.hk	TCP:443	VaR Logon (DR)
HTTPS	10.243.2.14 idm.hkexposttrade.com.hk	TCP:443	VaR DA Platform (PR)
HTTPS	10.243.66.14 idm.hkexposttrade.com.hk	TCP:443	VaR DA Platform (DR)

#### 4.8 Special Settings for Domain Name Resolution

**Important Notes : If your DNS setting<sup>12</sup> does not follow the recommended standard configurations:**

1. If for any reason other DNS setting is being used, Participants and DBs should be ensured that **DNS forwarding** is enabled to resolve the domain names of “**ccass.com**” and “**hkexposttrade.com.hk**” from HKEX DNS servers stated above. Otherwise, it would run into the risk that the delegated PCs will be unable to connect during DR failover, which might impact CPs’ and DBs’ operations.
2. If host table is used instead, please note that the DR site IP addresses are different from its Primary ones. In addition, HTTPS services must be accessed by domain name and thus all host entries in tables above should be included. As a result, manual changes would be required upon DR failover and also when fail back to

<sup>10</sup> Participants and DBs will be redirected to CCASS 2FA Logon for authentication and then switch back to CCASS Online functions or Security Management functions automatically.

<sup>11</sup> Participants will be redirected to VaR Logon for authentication and then switch back to VaR Online automatically.

<sup>12</sup> For CCASS connection, the IP address would be the same for both PR and DR and so there is no change upon DR failover. But for VaR and RAP connection, the IP for PR and DR is different and so it would be an issue if the delegated PCs unable to detect IP changes upon system failover.

PR site. It should also be noted that the DR failover could happen individually or together for any of the system below.

- a. CCASS
- b. CCASS 2FA Logon
- c. VaR Online (not applicable to DBs)
- d. VaR Logon and DA Platform (not applicable to DBs)

The manual changes is be prone to error and is not recommended. Participants and DBs would take their own risk in failure to connect to DR sites if they choose not to use HKEX DNS servers.

In general, using other DNS server or host table is not recommended. Participants and DBs should consider the risk and must perform thorough testing to ensure their own delegated PCs be able to connect and work properly during normal and failover scenarios.

## 5 CCASS Terminal

To use CCASS functions, the following hardware and software **must be** installed or configured on the PC terminal.

- **MS Edge Browser with IE Mode**: Configurations must be made or otherwise some CCASS functions may not work properly. For details, please refer to **Section 5.1** to **Section 5.8** below
- **Java Plugin**<sup>13</sup>: if you do not have Java Plugin installed, please go to **Section 5.11** for Java Plugin installation. If you have other Java Plugin version on the PC, please make sure all of them will be removed first. For supported JRE versions on Windows, please refer to Section 2.

### 5.1 Internet browser Settings

Please note that some PC may have disabled user access to settings below and you will need to ask your PC administrator for help. Please also remember to close all your MS Edge browser windows and start new ones to make the changes effective.

### 5.2 Setup for MS Edge browser with Internet Explorer Mode

1. Download CCASS/3 Terminal Site List file from Commissioning Website  
<https://www.ccass.com/commissioning/download>

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<sup>13</sup> Java Plugin will become optional after CCASS/CCMS reports are available for download via RAP in July 2025. It is only required for downloading CCASS/CCMS reports from CCASS Terminal Report Download function. It is not required for downloading CCASS/CCMS reports via RAP



HONG KONG EXCHANGES AND CLEARING LIMITED

## WELCOME TO

## CCASS/3 Terminal Commissioning

### Download Area



PRESS [HERE](#) TO DOWNLOAD CCASS/3 TERMINAL SITE LIST

PRESS [HERE](#) TO DOWNLOAD CCASS/3 TERMINAL INSTALLATION PROCEDURES

PRESS [HERE](#) TO DOWNLOAD ROOT CA CERTIFICATE

PRESS [HERE](#) TO DOWNLOAD PROCEDURE TO INSTALL ROOT CA CERTIFICATE

CLICK [HERE](#) TO DOWNLOAD ADOBE® ADOBE® READER®

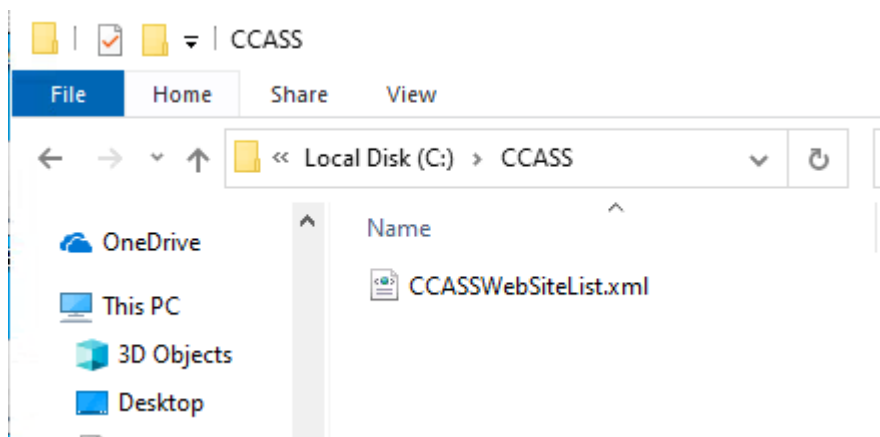
BY DOWNLOADING THIS SOFTWARE ONTO YOUR PC FROM THIS COMMISSIONING WEBPAGE, YOU AGREE TO USE THIS SOFTWARE FOR THE PURPOSE OF VIEWING PDF FILES WITHIN THIS CCASS/3 NETWORK ONLY. YOU ARE NOT ALLOWED TO REPRODUCE, MODIFY OR REDISTRIBUTE THE SOFTWARE OR USE IT FOR ANY OTHER PURPOSE. YOU FURTHER AGREE TO INDEMNIFY HKEX AND ITS SUBSIDIARIES AGAINST ANY CLAIMS, DAMAGES, EXPENSES AND COSTS THAT MAY ARISE AS A RESULT OF ANY UNAUTHORIZED USE BY YOU OF THE SOFTWARE.

IF YOU NEED TO CHECK THE SOFTWARE COMPATIBILITIES IN YOUR COMPUTER, PLEASE CLICK [HERE](#).

2. Right click "HERE" on "PRESS HERE TO DOWNLOAD CCASS/3 TERMINAL SITE LIST, and select "Save target as..."



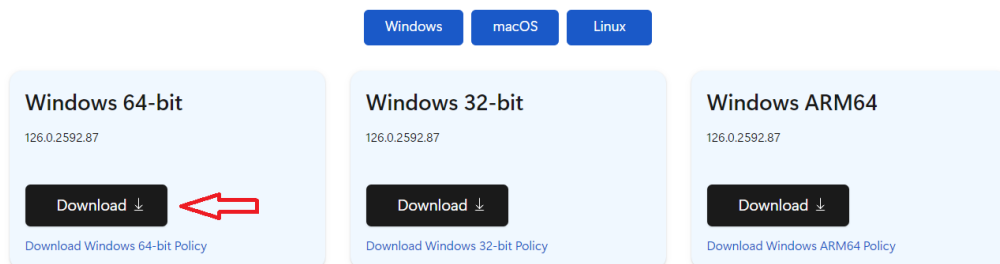
3. Save the file to C:\CCASS\CCASSWebSiteList.xml



4. Download MS Edge browser and policy files

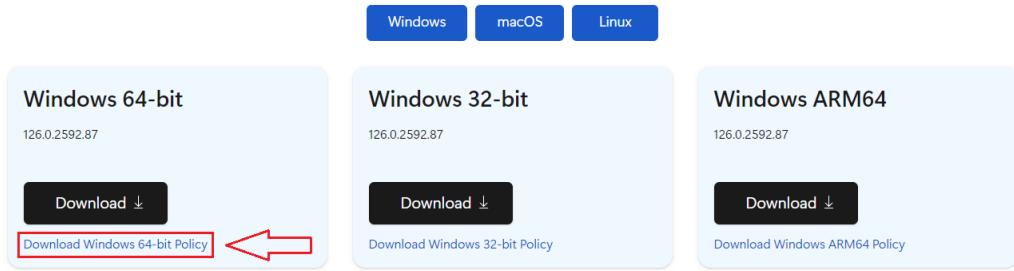
- a. Go to <https://www.microsoft.com/en-us/edge/business/download>
- b. Click the link to download MS Edge browser for “Windows 64-bit”

Download the latest



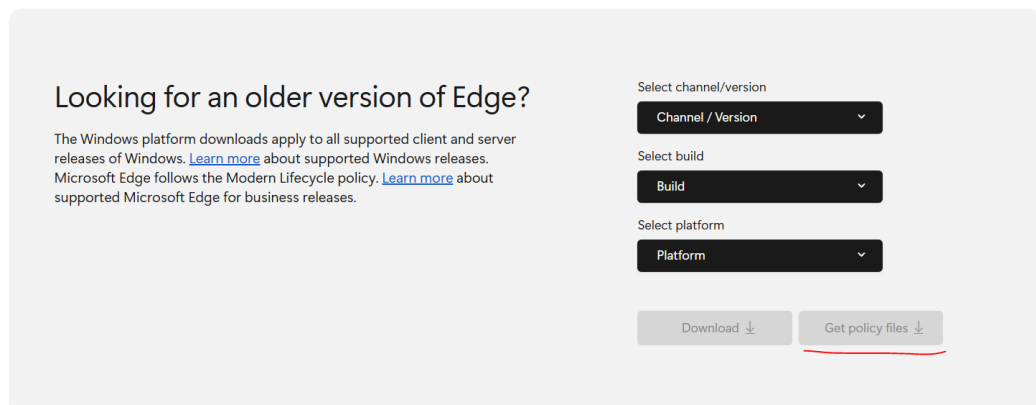
- c. Click the link to download for “Windows 64-bit Policy”

Download the latest



OR

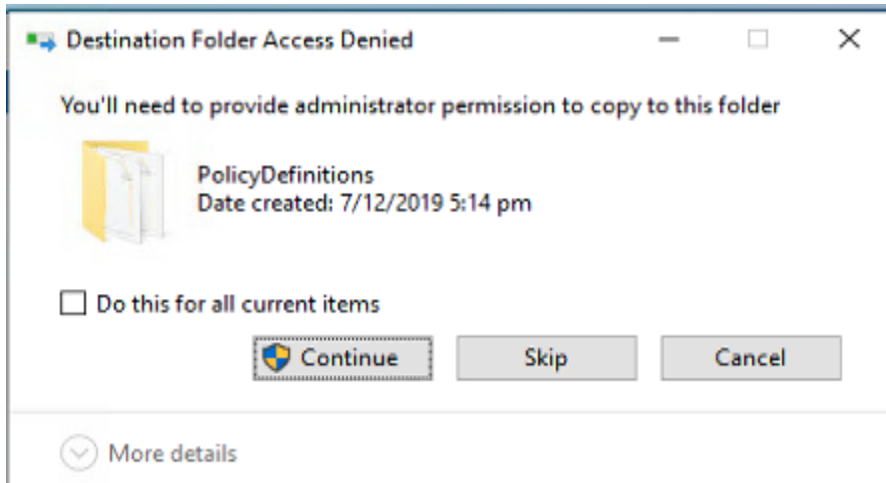
Download edge Policy Files by selecting the Edge browser version (show as below)



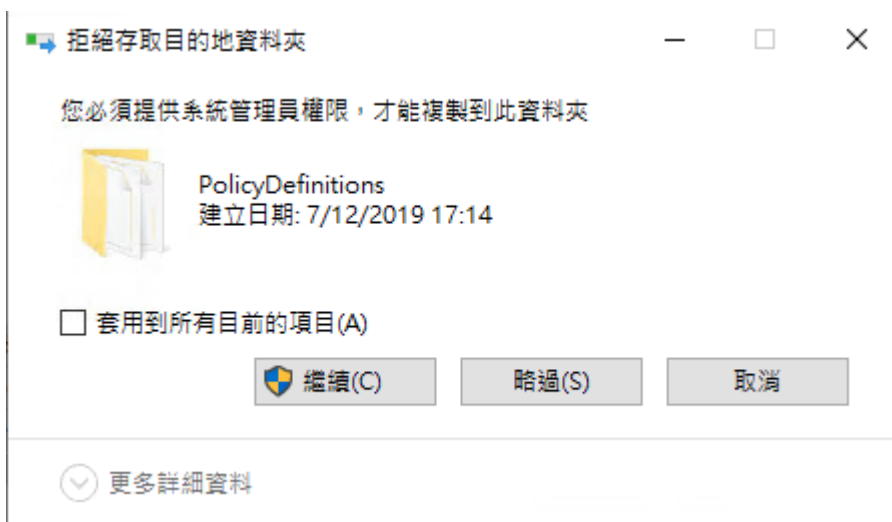
5. Unzip MS Edge policy files to a temporary folder (e.g. C:\TEMP\). To extract, double click the .cab file and extract the .zip to your location.
6. Copy the following 3 files under MicrosoftEdgePolicyTemplates\windows\admx\ to C:\Windows\PolicyDefinitions\

 msedgedge.admx	11/11/2021 11:24 pm	ADMX File
 msedgeupdate.admx	11/11/2021 11:24 pm	ADMX File
 msedgewebview2.admx	11/11/2021 11:24 pm	ADMX File

Click Continue for this security prompt to confirm copying:



For Chinese Windows OS:



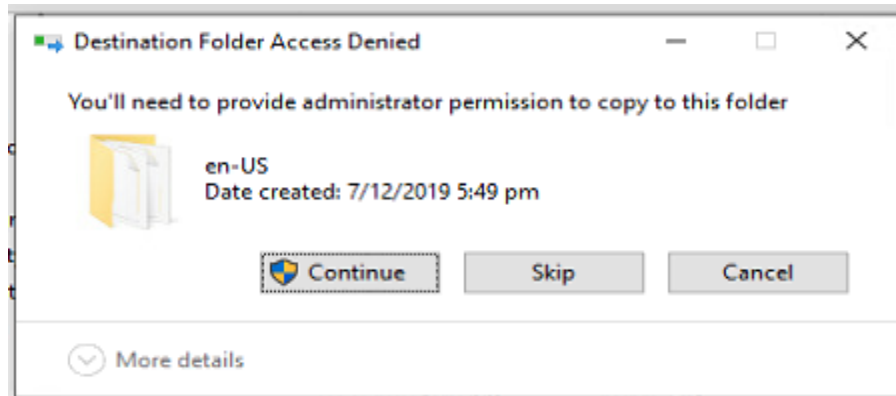
- Copy the following 3 files under MicrosoftEdgePolicyTemplates\windows\admx\en-US\ to C:\Windows\PolicyDefinitions\en-US (for English Windows OS), or

Name	Date modified	Type
msedge.adml	11/11/2021 11:24 pm	ADML File
msedgeupdate.adml	11/11/2021 11:24 pm	ADML File
msedgewebview2.adml	11/11/2021 11:24 pm	ADML File

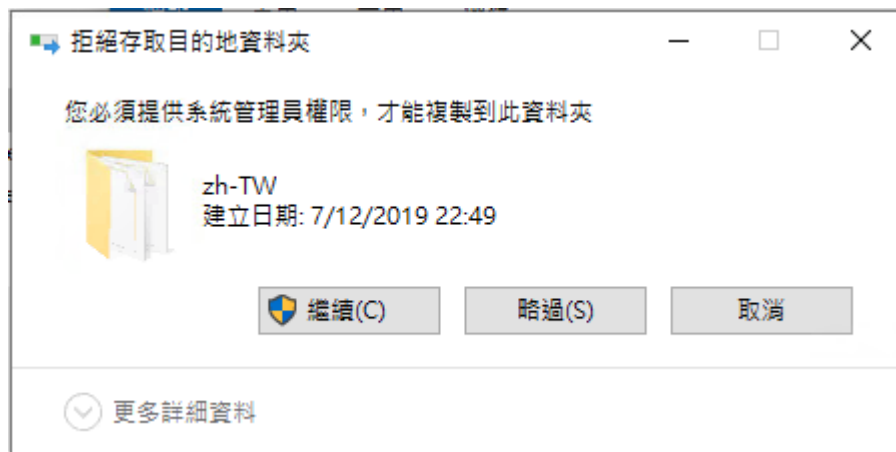
Copy the following 3 files under MicrosoftEdgePolicyTemplates\windows\admx\zh-TW\ to C:\Windows\PolicyDefinitions\en-US (for Traditional Chinese Windows OS)

Name	Date modified	Type
 msedge.adml	11/11/2021 11:24 pm	ADML File
 msedgeupdate.adml	11/11/2021 11:24 pm	ADML File
 msedgewebview2.adml	11/11/2021 11:24 pm	ADML File

Click Continue for this security prompt to confirm copying:

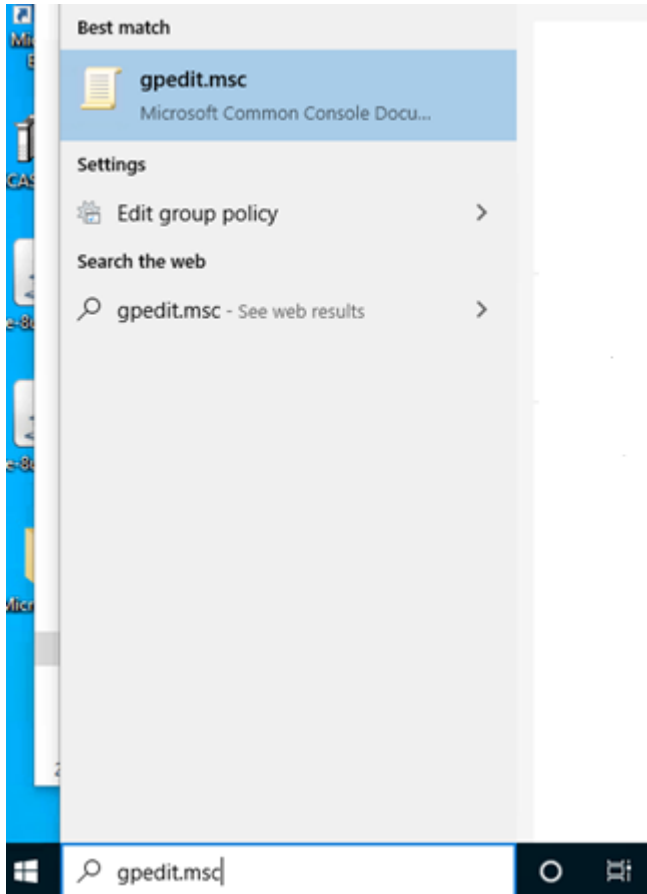


For Chinese Windows OS:

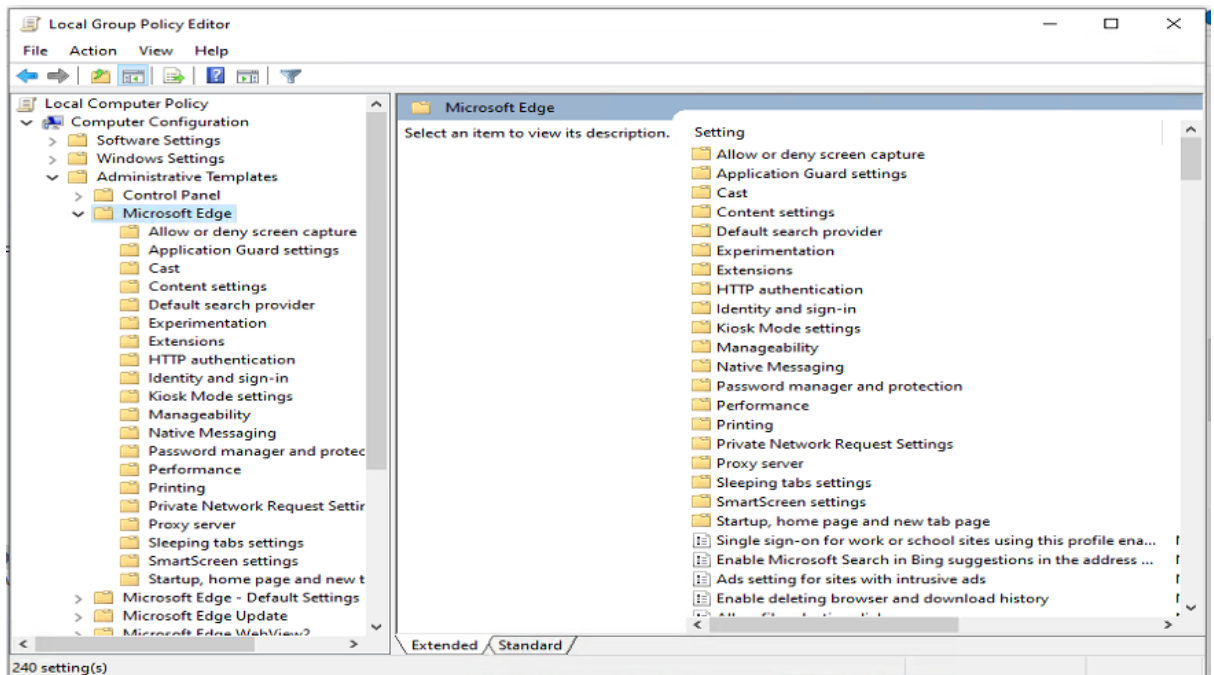


- Open "Edit Group Policy" by typing "gpedit.msc" in the Search field box



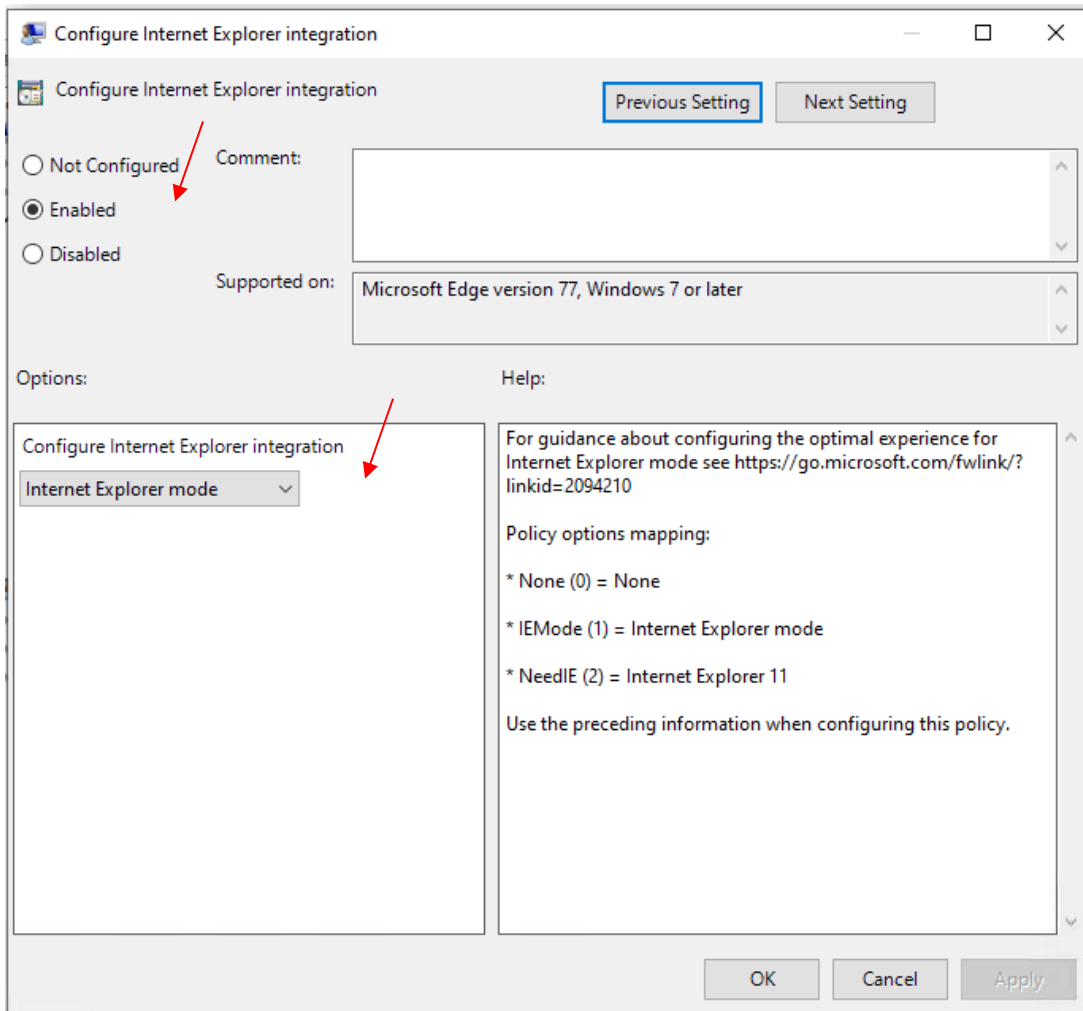


9. Browse to “Computer Configuration” > “Administrative Templates” > “Microsoft Edge”

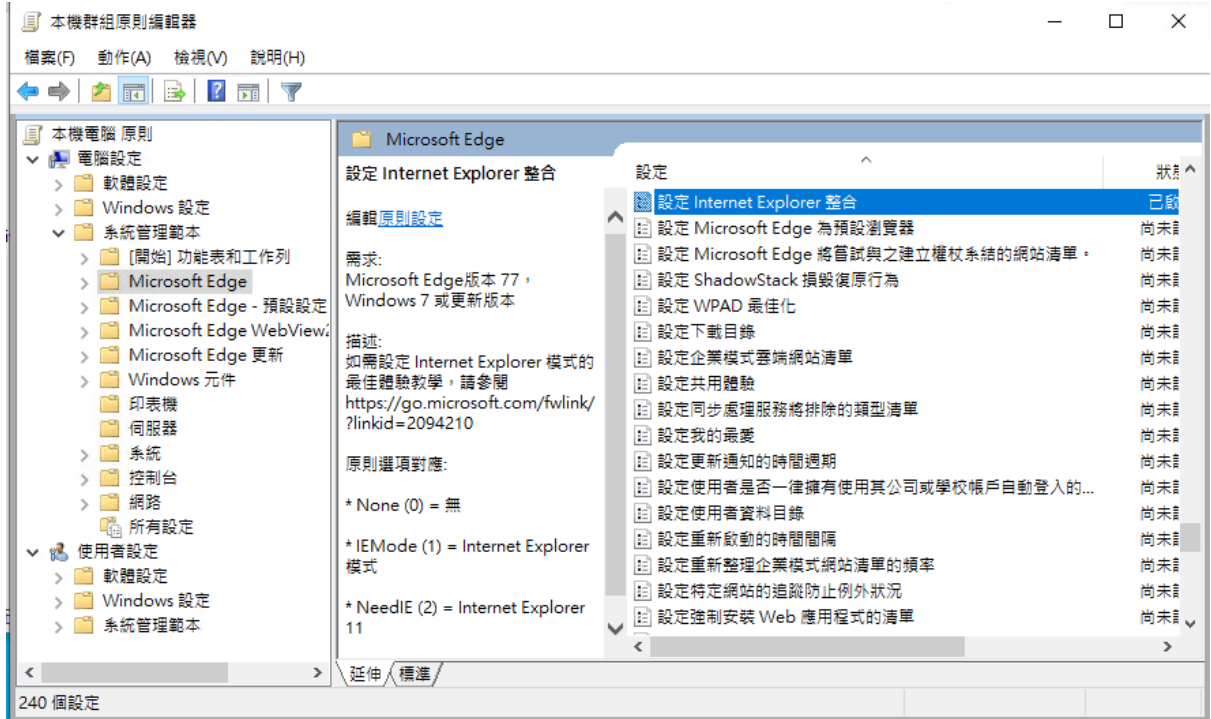


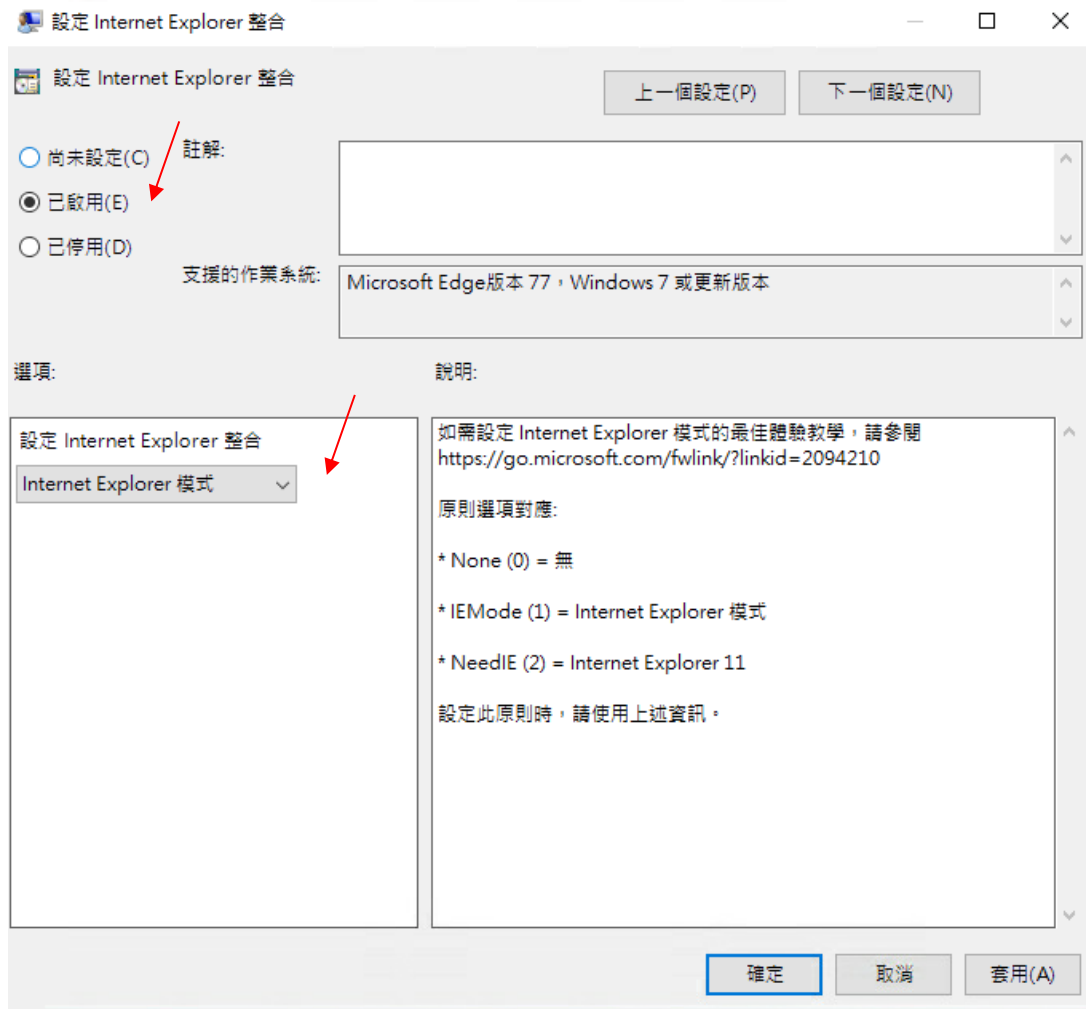
10. Change Setting “Configure Internet Explorer Integration”

11. Select “**Enable**” and, in Options section, select “**Internet Explorer mode**” in the drop down box

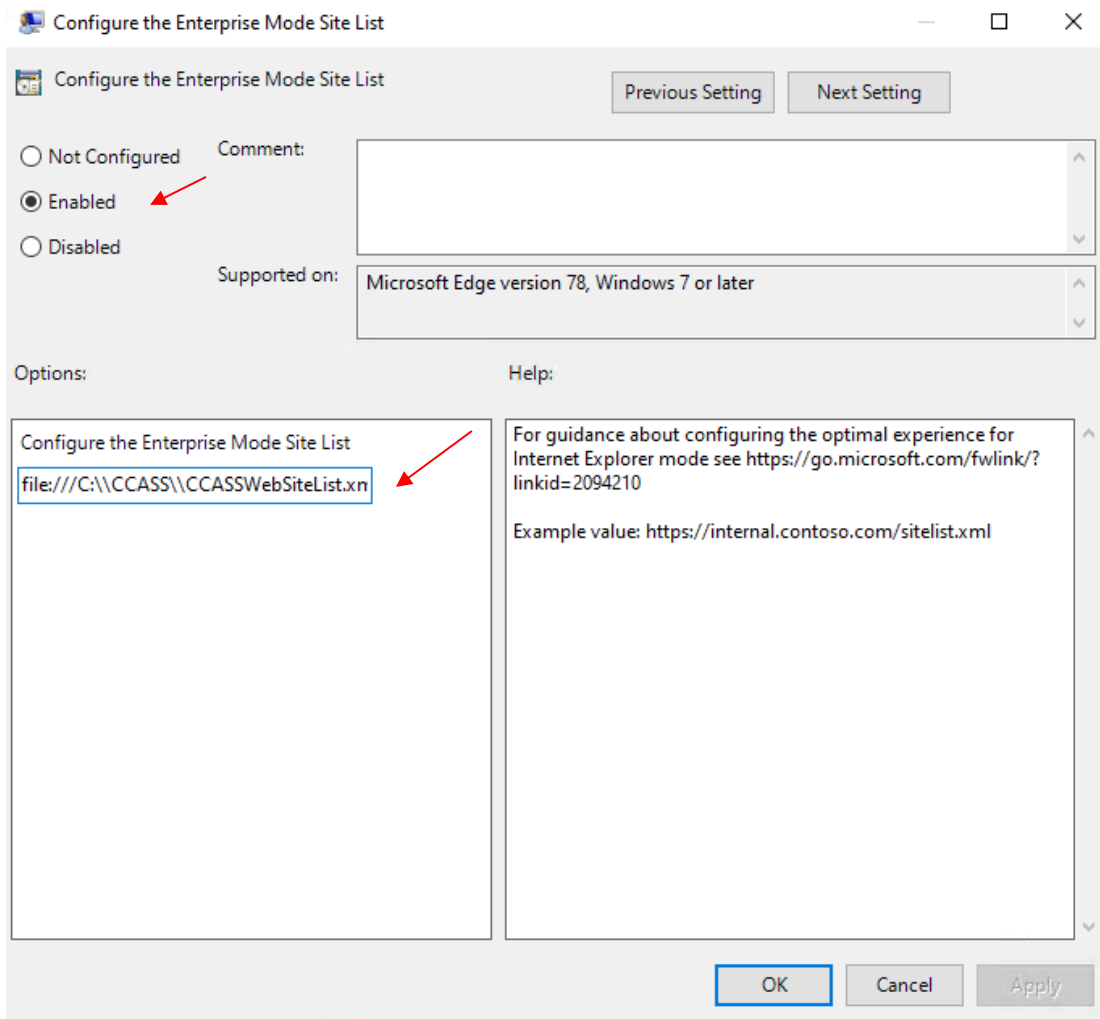
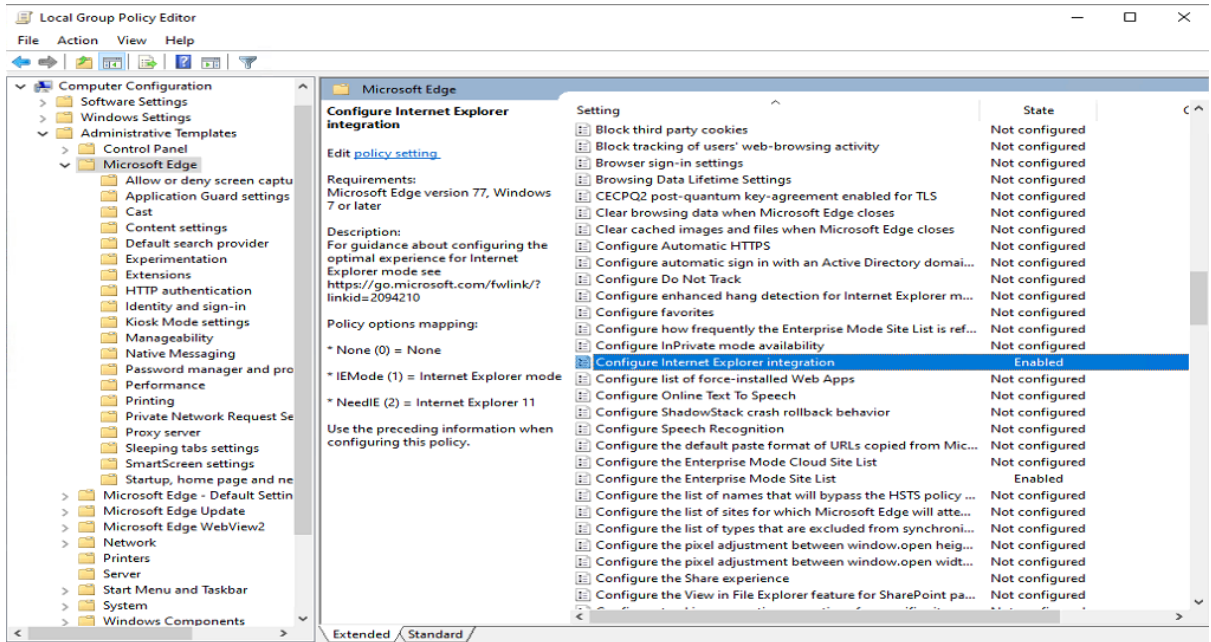


For Chinese Windows OS:

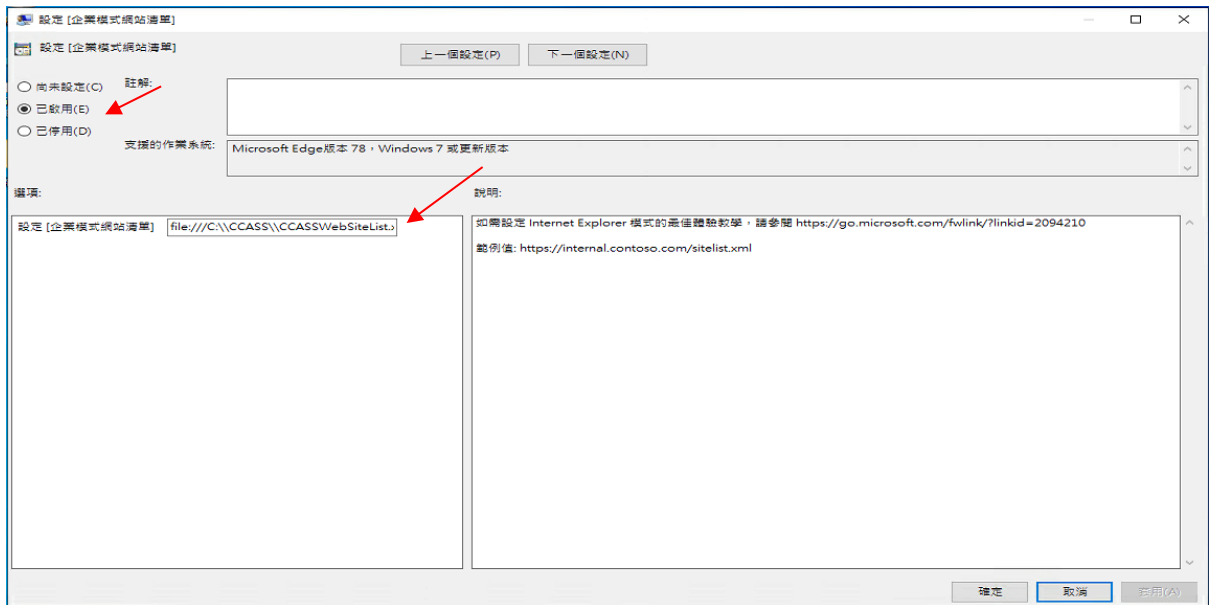
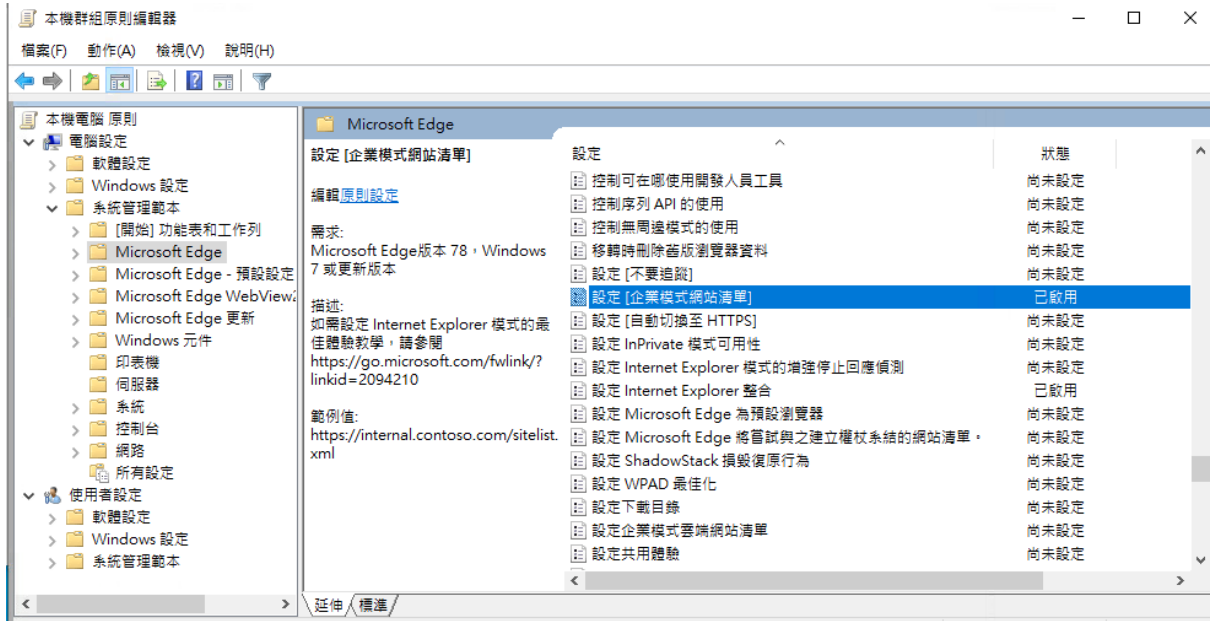




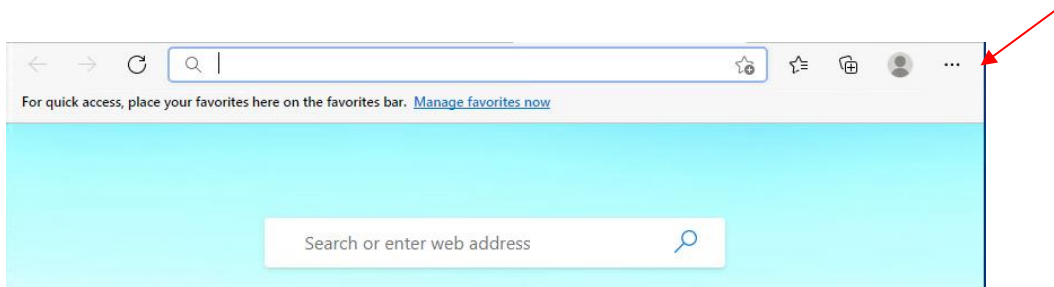
12. Click OK to save
13. Change Setting “Configure the Enterprise Mode Site List”
14. Select “**Enable**” and, in Options section, input Enterprise Mode Site List as “file:///C:\\CCASS\\CCASSWebSiteList.xml”



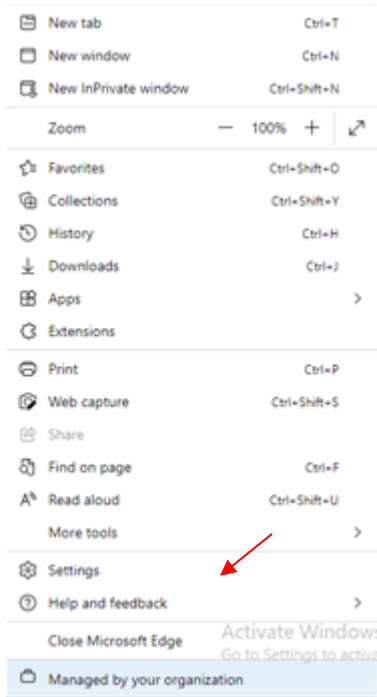
For Chinese Windows OS:



15. Click OK to save
16. Enable Pop-Up <https://www.ccass.com:443> and <https://www.ccass.com:442> in MS Edge browser
  - a. Select “...” on the right hand corner of Edge browser



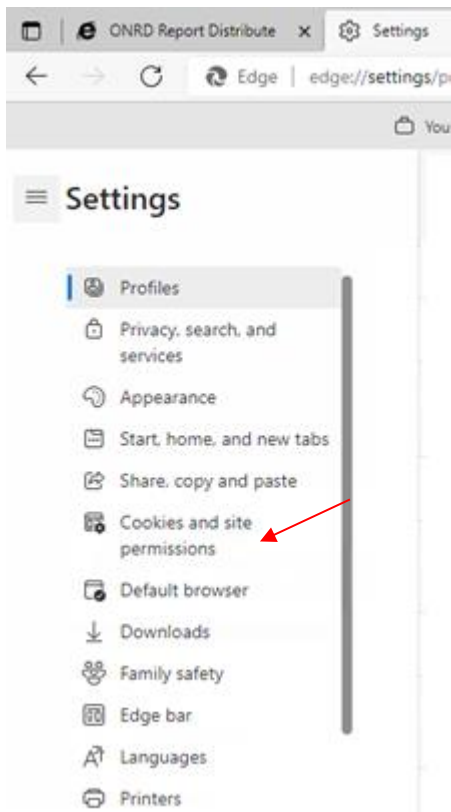
b. Go to Settings



For Chinese Windows OS:



c. Click “Cookies and site permissions”

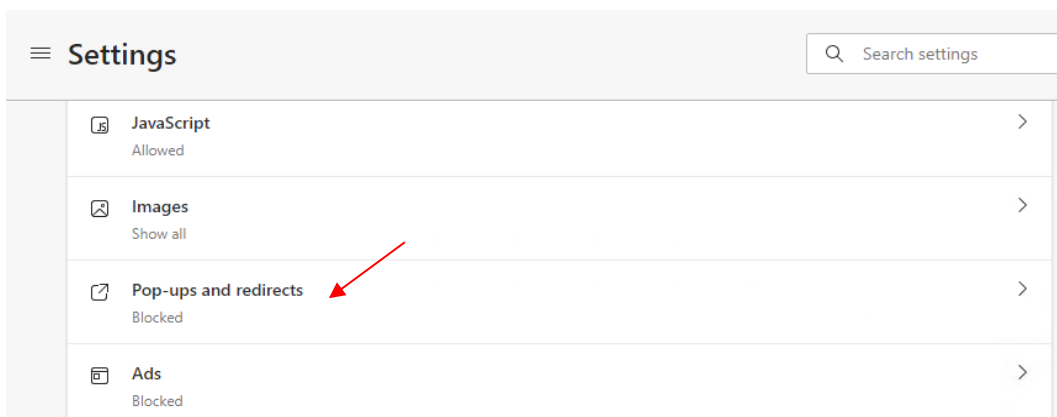


For Chinese Windows OS:





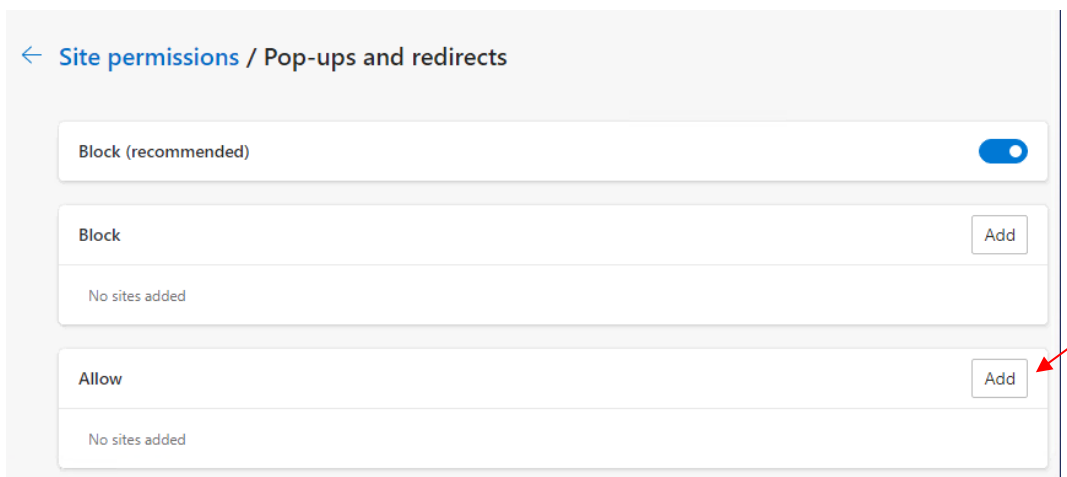
d. Go to “Pop-ups and redirects”



For Chinese Windows OS:



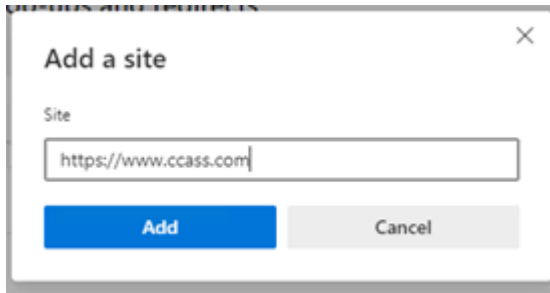
e. Go to “Allow” section and click “Add” button



For Chinese Windows OS:



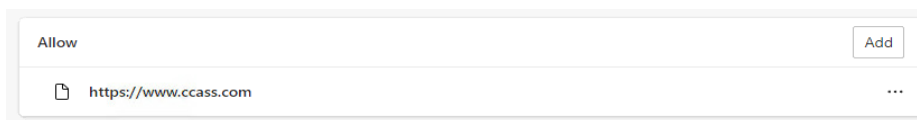
f. Input <https://www.ccass.com> and click “Add”



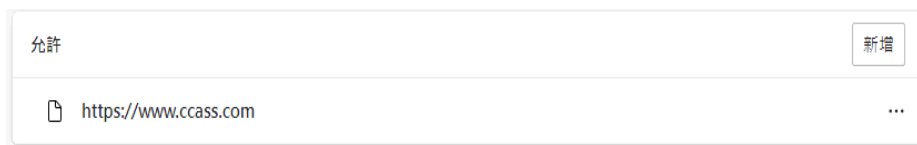
For Chinese Windows OS:



g. Confirm to see the website <https://www.ccass.com> is added



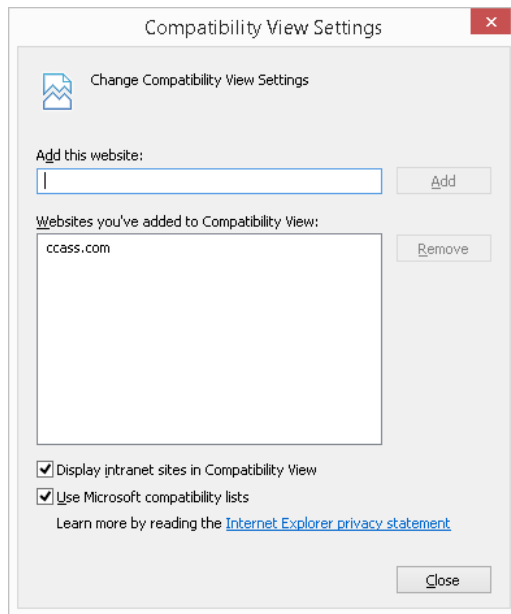
For Chinese Windows OS:



h. For new PC, it is still required to enable Compatibility View in IE11 if it has not yet been enabled for ccass.com

### 5.3 Compatibility View Settings (in Internet Explorer 11, if available)

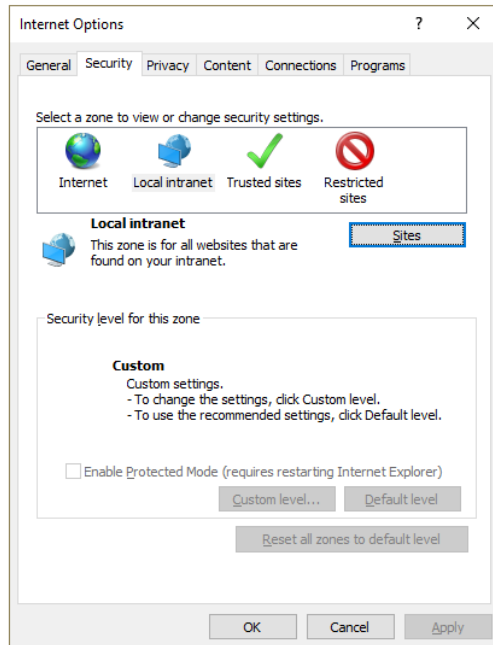
1. Open IE window, and then select “Tools” → “Compatibility View settings”.
2. Type [www.ccass.com](http://www.ccass.com)
3. Click “Add”, then “ccass.com” should be shown at the box “Websites you’ve added to Compatibility View.”



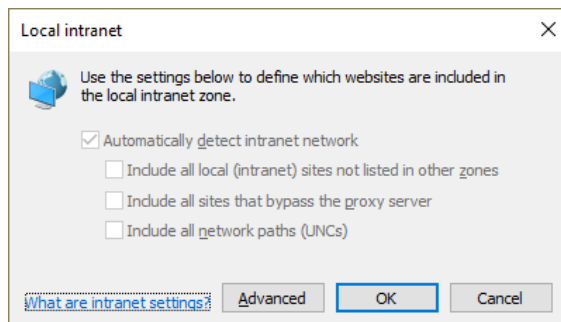
4. Click “Close” to close the window to complete the setting

## 5.4 Local Intranet Settings

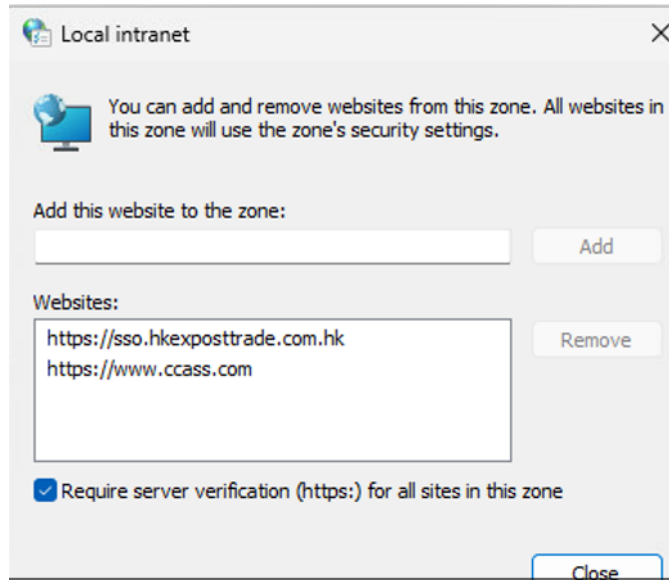
1. Go to “Control Panel” → “Internet options” and then click on “Security” tab.
2. Then click on “Local intranet” and click on “Sites”



3. Click “Advanced”.



4. Type “https://www.ccass.com” and “https://sso.hkexpostrade.com.hk” and then click add “Add”

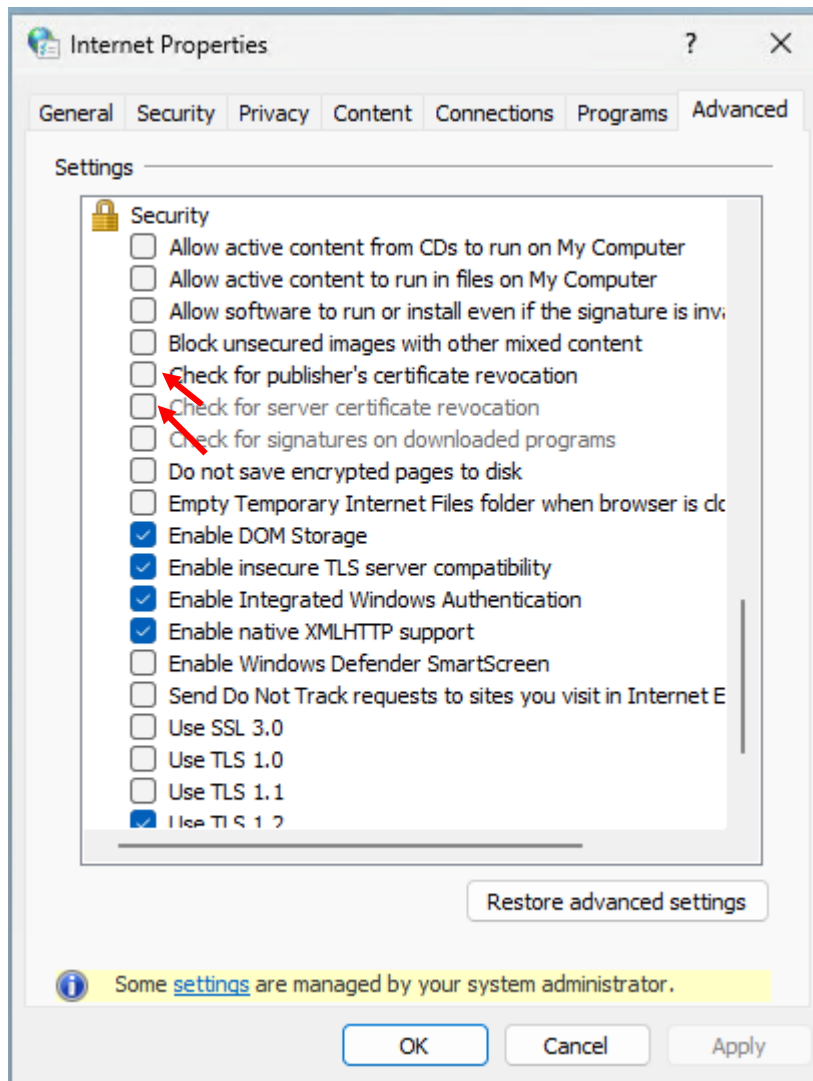


5. Click “Close” and then OK to close the window to complete the setting

#### 5.5 Disable Certificate Revocation Check

It apply to standalone CCASS Terminal with no Internet connection.

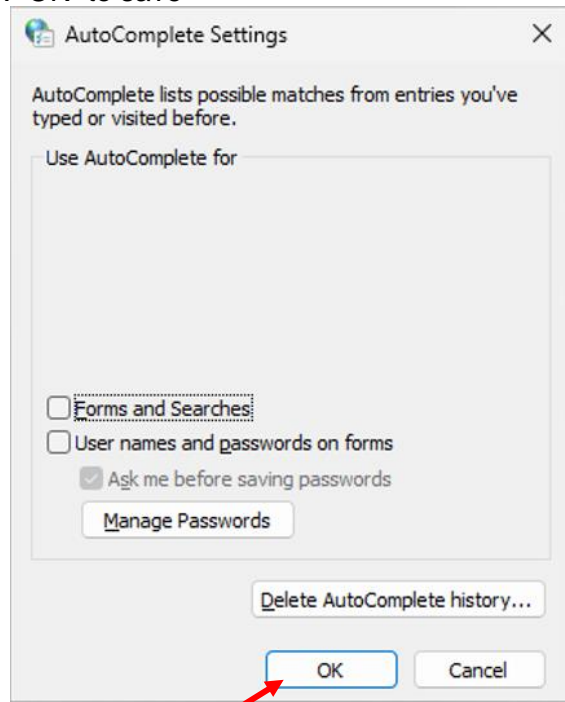
1. Go to “Control Panel” → “Internet options” and then click on “Advanced” tab.
2. Go to Security section and **unchecked** the following options
  - i. Check for publisher’s certificate revocation
  - ii. Check for server certificate revocation



3. Click "Apply" and OK to close the window to complete the setting

## 5.6 Disable AutoComplete for User Names and Passwords

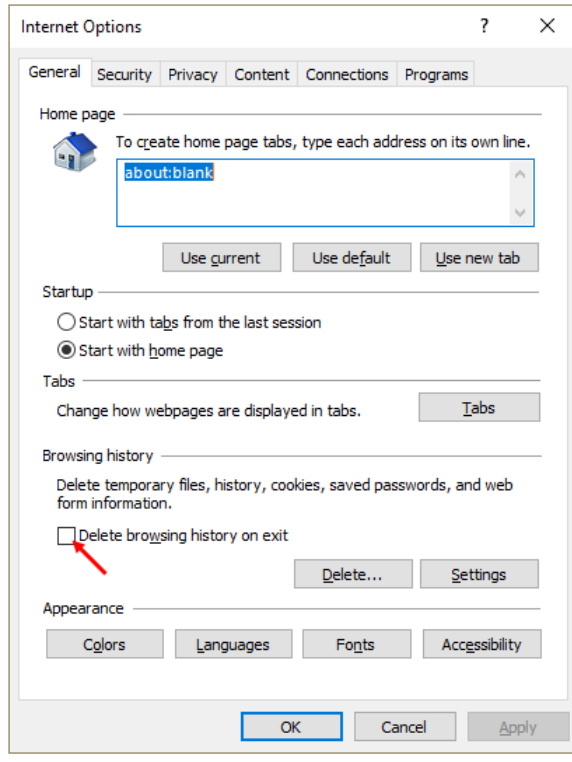
1. Go to “Control Panel” → “Internet options” and then click on “Content” tab. Click “Settings” button
2. Uncheck the option “User names and passwords on forms”
3. Click “OK” to save



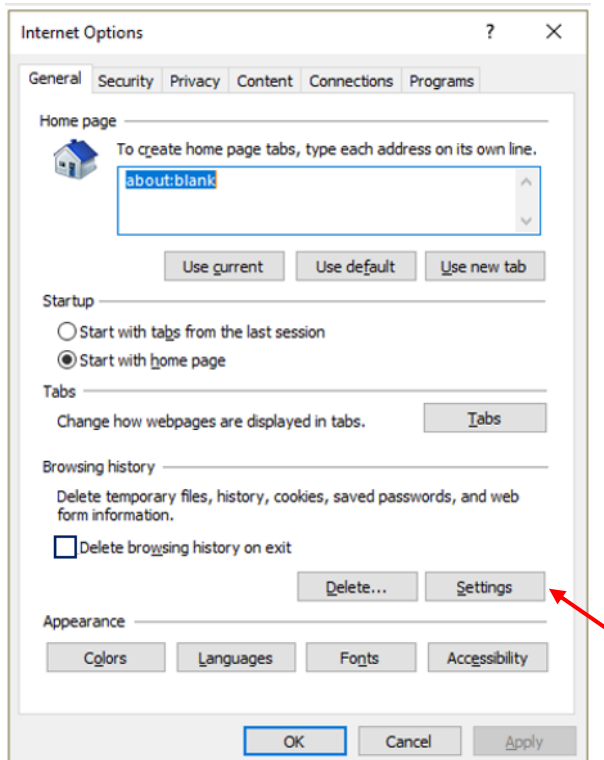


## 5.7 Browsing History

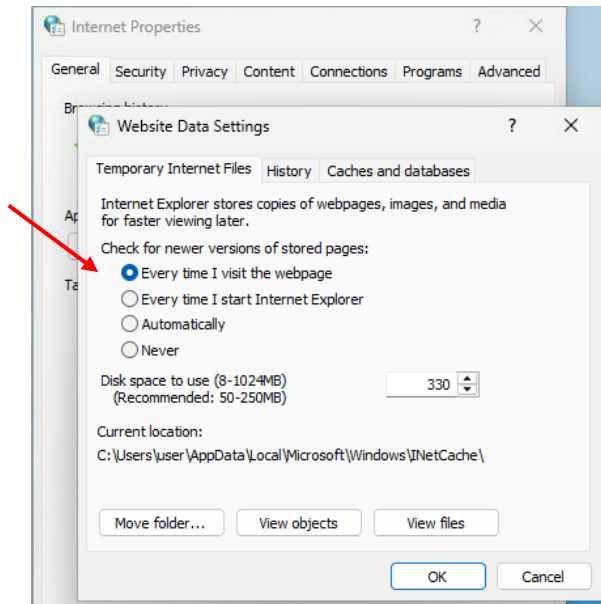
1. Go to “Control Panel” → “Internet options” and then go to “Browsing History”.
2. Ensure that the option “Delete browsing history on exit” is **not checked** (if any)



3. Then click on Settings

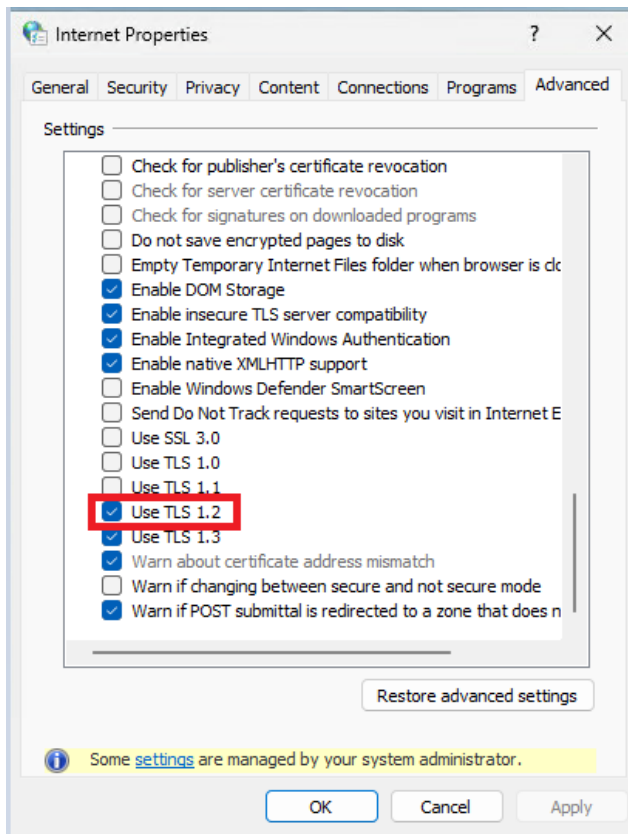


4. Ensure the option “Every time I visit the webpage” is **checked**



#### 5.8 TLS Connection Settings

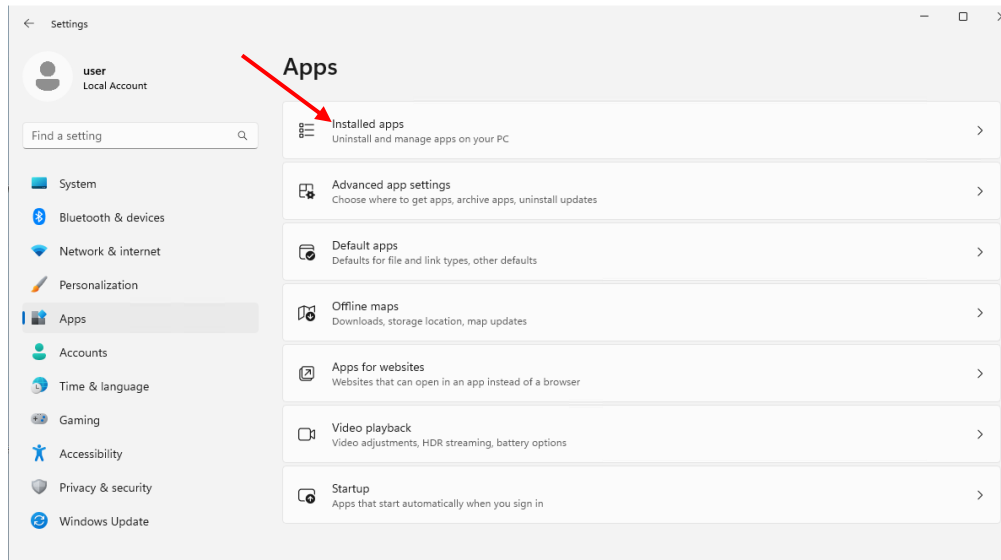
Only TLS 1.2 should be enabled while all other protocols should be disabled. Go to “Control Panel” → “Internet Options” → “Advanced” tab, and then scroll down to “Security” section. Check only TLS 1.2 and uncheck other SSL or TLS protocols.



## 5.9 Verify Java Plugin

Please follow steps below to verify if there is any obsolete JRE installed that would require un-installation.

1. Click “Start” button, select “Windows Settings”. Go to Apps -> Installed apps



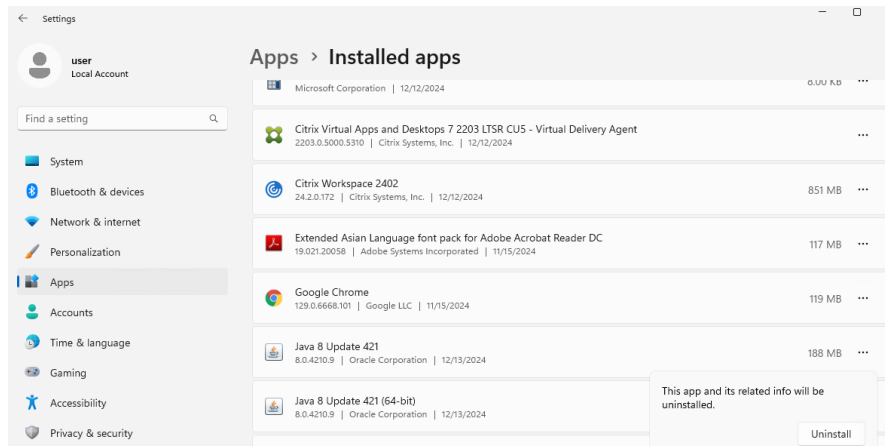
2. Find “Java X Update XX” in the list

- **If non-supported JRE is found, please go to Section 5.10 for uninstallation**
- **If no JRE is found, please go to Section 5.11 for Java plugin installation**

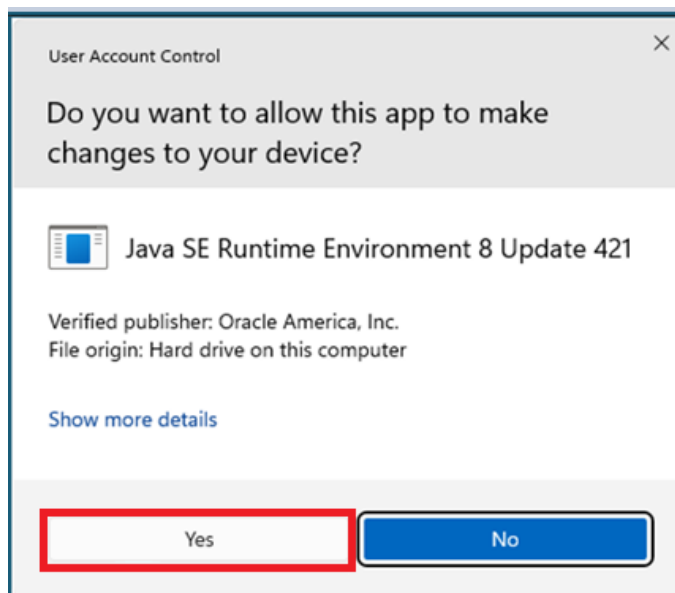
## 5.10 Uninstall Previous Java Plugin

Please make sure any previous version of JRE is removed before the new one is installed.

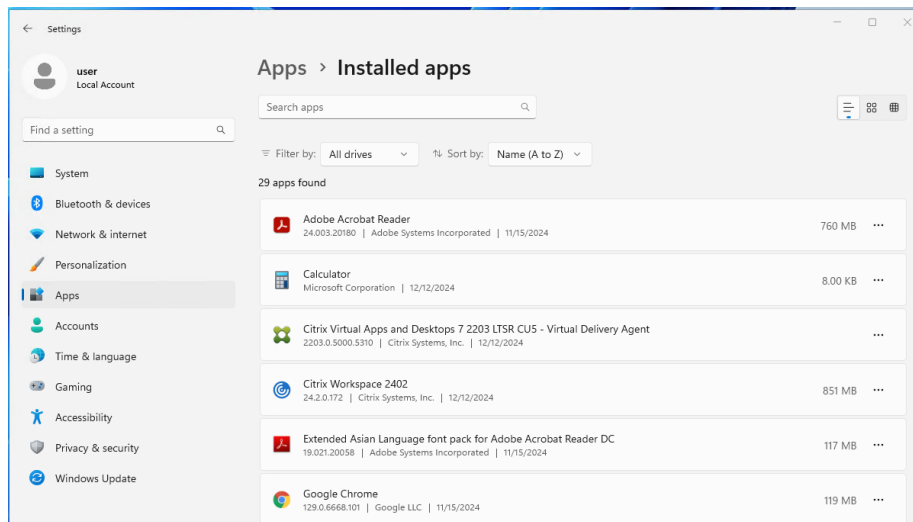
1. Go to “Uninstall a program” in Control Panel.
2. Ensure all Internet browser windows are closed.
3. Highlight the JRE item, and then click on the “Uninstall” button at the top. Click on “Uninstall” button for the alert “This app and its related info will be uninstalled” alert shows.



4. Click “Yes” when the “User Account Control” appear



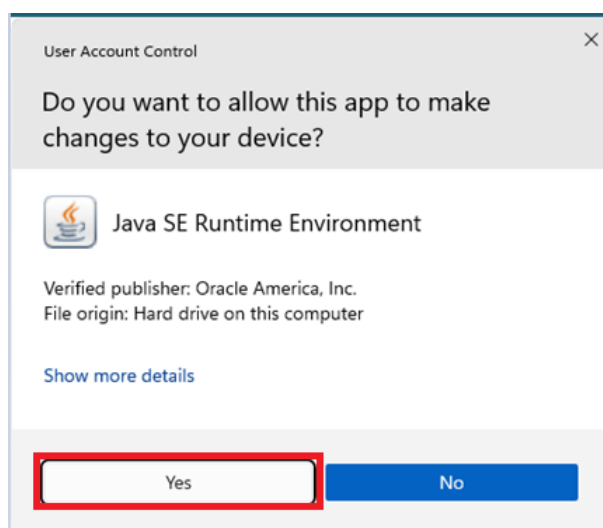
5. Check again that all JRE items should be removed



## 6. Restart the computer

### 5.11 Java Plugin Installation

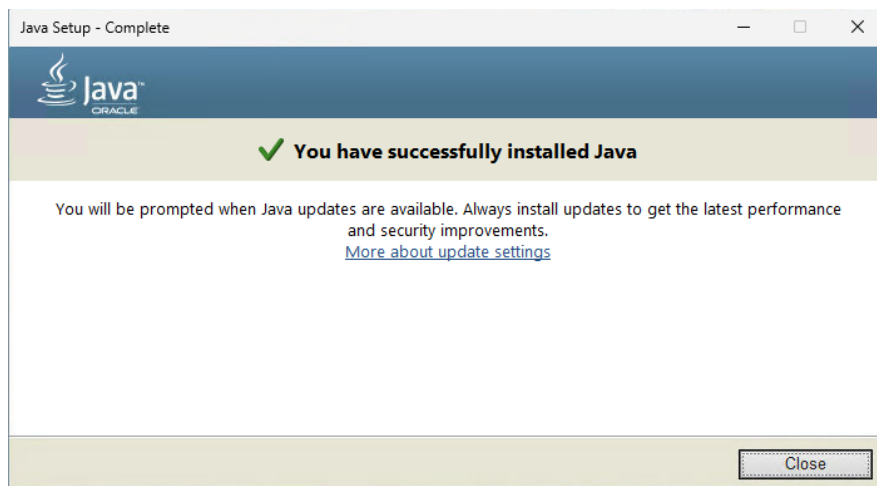
1. Ensure you have proper license subscription of Oracle Java, otherwise please refer to (<https://www.oracle.com/java/java-se-subscription.html>) about Oracle Java SE Desktop subscription.
  2. Download the following two installers of Windows x86 and x64 version of Oracle Java SE Runtime Environment 8u441 from (<https://www.java.com/en/download/> or <https://www.oracle.com/java/technologies/javase/javase8u211-later-archive-downloads.html>).
- jre-8u441-windows-i586.exe – for Windows x86  
jre-8u441-windows-x64.exe – for Windows x64
3. Double click to start installation of both installers.
  4. Click “Yes” when the “User Account Control” Window appears



5. Ensure all Internet browser windows are closed.
6. Click “Install>” button to continue

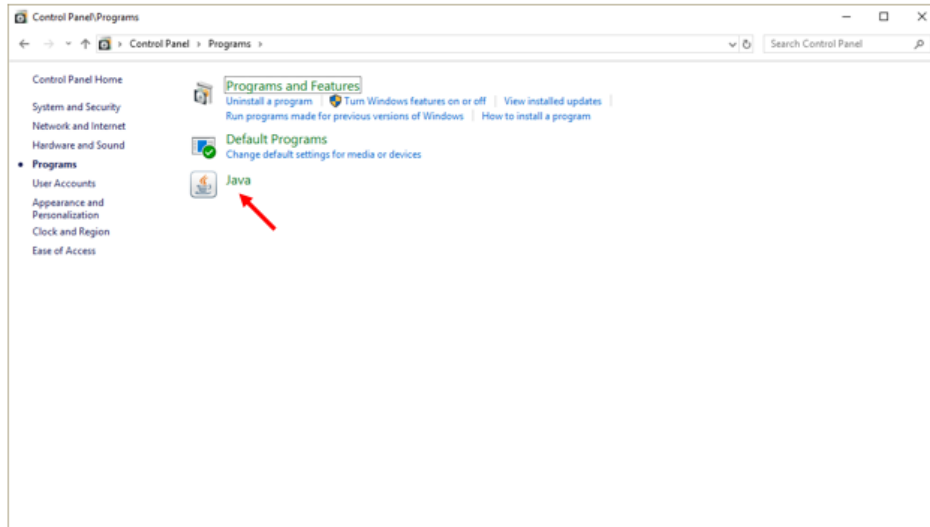


7. Wait for installation to complete and click “Close”

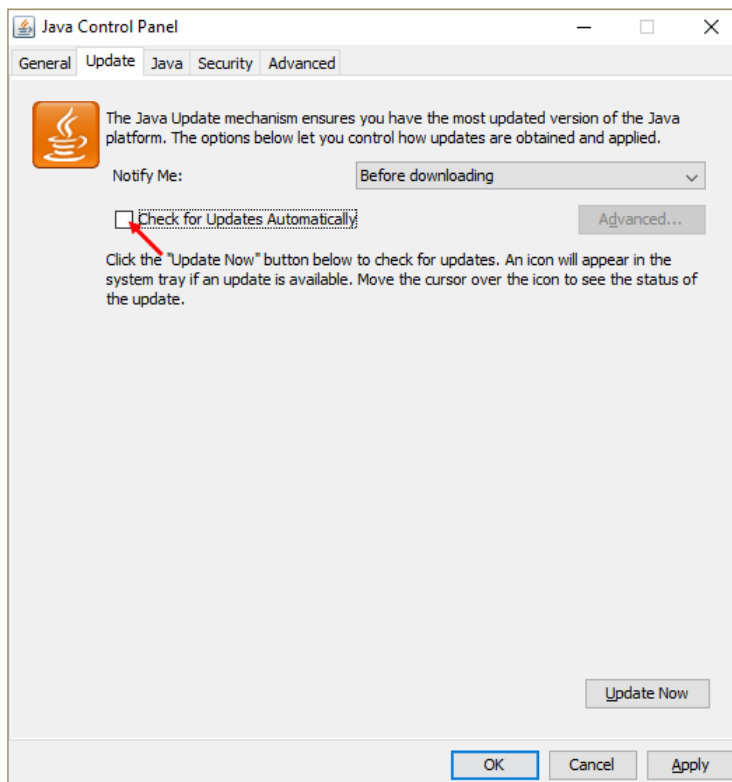


## 5.12 Java Plugin Configurations

1. Auto update should be disabled. To do so, click “Start” to launch start menu then “Control Panel” and then click “Program” and then click “Java”

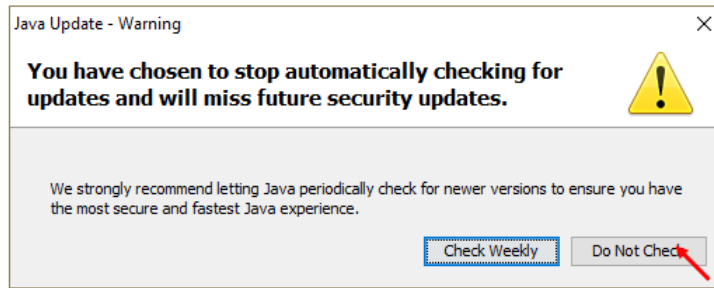


2. Select “Update” tab and uncheck “Check for Updates Automatically”.

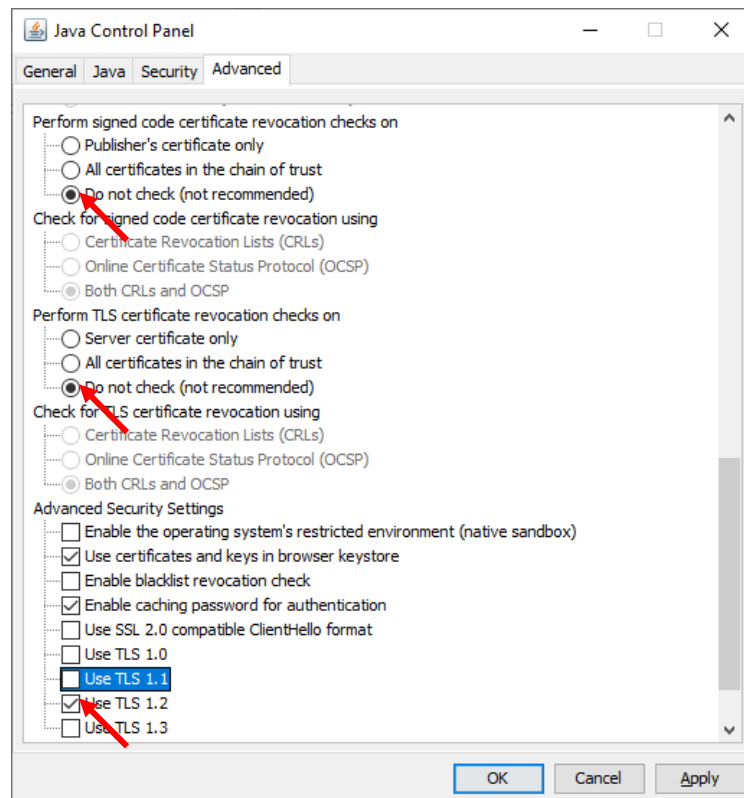




3. Click “Do Not Check” button in the warning dialog.



4. Click “Advanced” Tab and then scroll to the bottom.
5. Select the following settings in Advanced settings
  - a) Perform signed code certificate revocation checks on  
**Do not check**
  - b) Perform TLS certificate revocation checks on  
**Do not check**
  - c) Advanced Security Settings  
**Use TLS 1.2**



6. Click Apply and then OK to exit the window.

## **6 RAP Technical Setup**

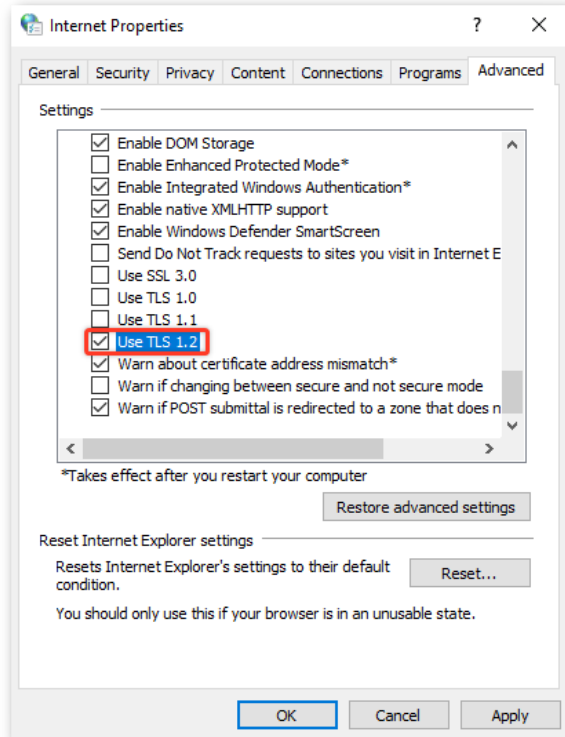
After the network setup is completed, HKSCC Participants and DBs should proceed to configure their RAP setup & connectivity according to the HKSCC Report Access Platform (RAP) Technical Guide available in Client Connect on HKEX Access Management Portal.

## 7 VaR Online (not applicable to DBs)

HKSCC Clearing Participants who would like monitor and conduct risk management simulation can apply for VaR Online DA and setup their own user access to VaR Online.

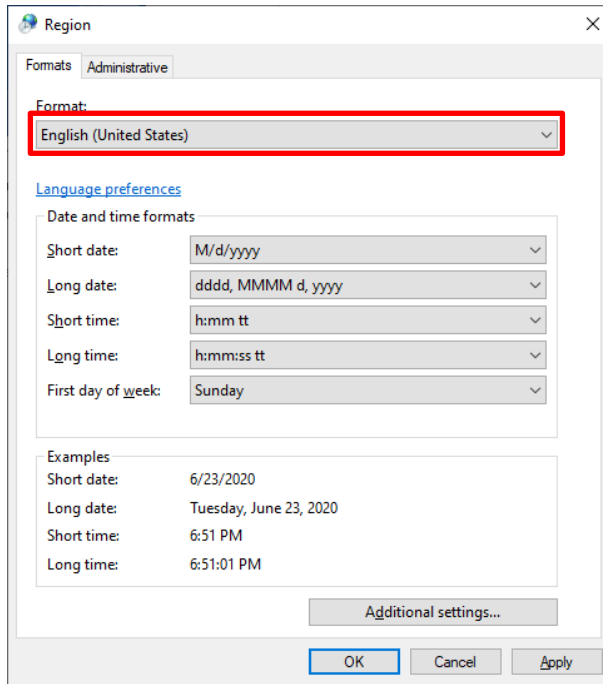
### 7.1 TLS Connection Settings

Only TLS 1.2 should be enabled while all other protocols should be disabled. Go to “Control Panel” → “Internet Options” → “Advanced” tab and then scroll down to “Security” section. Check only TLS 1.2 and uncheck other SSL or TLS protocols.



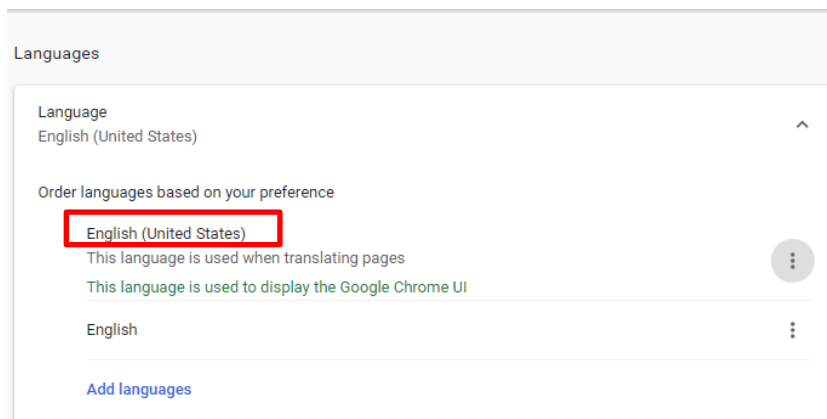
## 7.2 Language Settings in Windows

Please ensure the language of operating system is set to English (United States). Go to “Control Panel” → “Region”



## 7.3 Language Settings in Chrome

Please ensure the language of Chrome is set to English. Go to “Settings” → “Advanced” → “Languages”



## 7.4 Language Settings for VaR Online

Please ensure the language of the delegated PC is to English (United States). Go to “Settings” → “Languages”

