

NOVAKON

HMI – Your Intelligent IIoT Gateway Solutions

TOSIBOX VPN 功能啟動 &操作說明

Version 2.0.0.2

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TOSIBOX 是一間為 OT 工業網路提供 VPN 加密通道的芬蘭解決方案商公司。TOSIBOX VPN 遠端連線設備，主要解決客戶端無 IT 人員編制基礎上，可自行利用此設備升級「安全物聯網連線、遠端維護及網路管理」等能力。TOSIBOX 最大優勢為『簡單化』，就算沒有任何 IT 背景也可輕鬆設定 VPN、點對點(End-to-End)加密、無需雲端設定、無需固定 IP 等特點，只需插上網路線、並將金鑰下載至電腦，就可遠端連線。

速博康科技之 P 系列人機介面(HMI)與協議轉換閘道器(GW-01)可選配搭載 TOSIBOX 軟體鎖 LfC (Lock for Container)，與 TOSIBOX 硬體或軟體金鑰(Key)配對後即可達到跨網域的加密連線。

1. 安裝系統

欲使用TOSIBOX的Lock & Key進行VPN連線，必須先完成人機介面與閘道器之韌體更新，以啟動TOSIBOX LfC功能。以下針對安裝系統流程之步驟一一說明。

1.1 HMI 安裝 TOSIBOX LfC

本例以P10-N做示範。需先安裝支援TOSIBOX的韌體檔，此檔只需安裝一次，且不會影響日後安裝其他版本韌體之功能。



A. 下載這個韌體檔至HMI。



B. 安裝時會進行重新開機一次，接著出現上方的對話框(僅在第一次安裝時會出現)，會再重

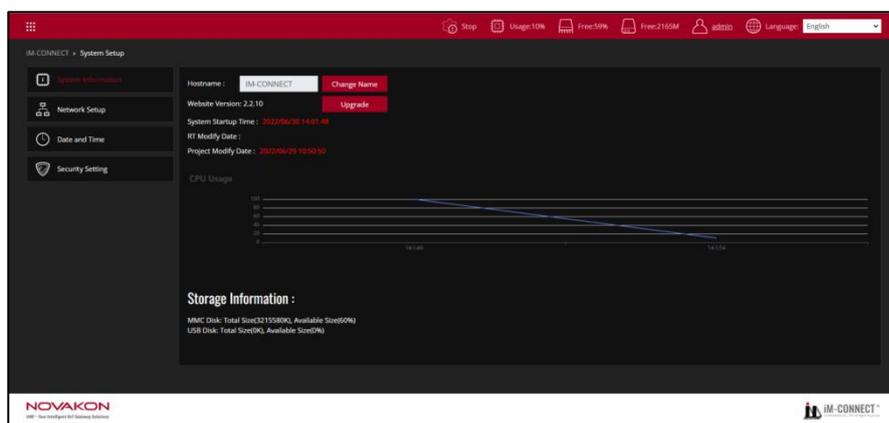
新開機一次，代表TOSIBOX LfC已成功安裝在HMI。

C. 此時可依標準安裝iFACE Designer[®]專案的步驟，下載所使用的韌體與應用。

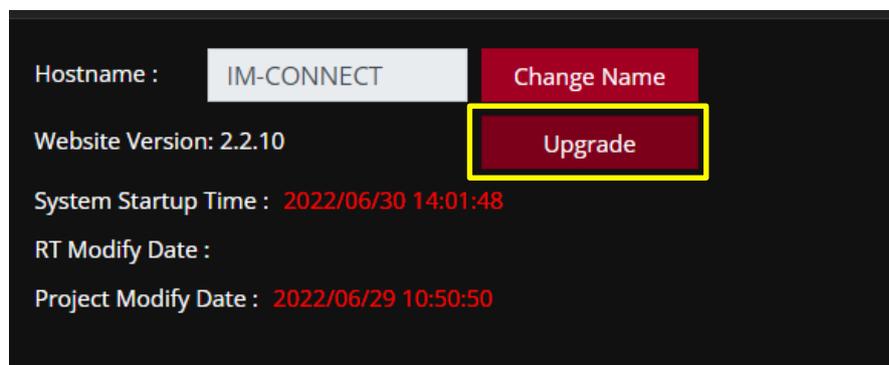
1.2 Gateway 安裝 TOSIBOX LfC

本例以GW-01為範例，請先進行安裝新版軟體。如果對iM-CONNECT®操作有不熟悉的地方，請參考【iM-Connect協議轉換閘道器軟體使用手冊】。

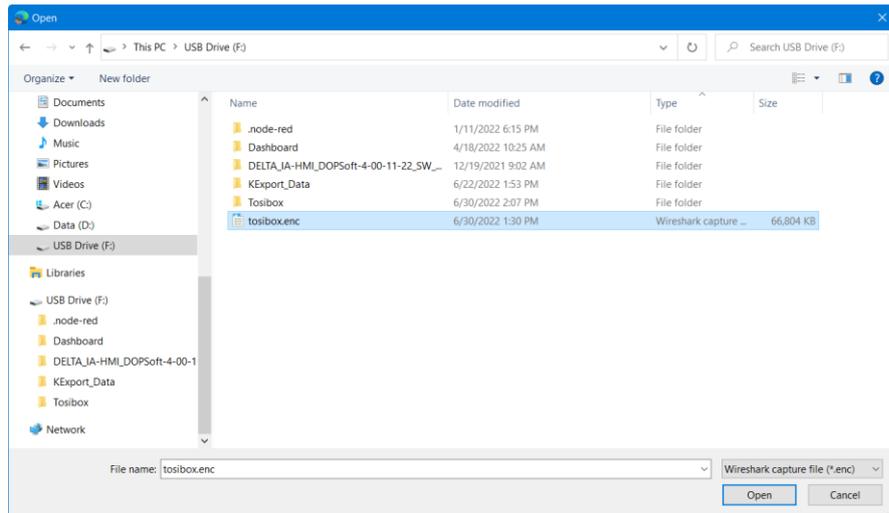
- A. 輸入GW-01的IP並登入，點選iM-CONNECT選單，選擇【SYSTEM SETUP】後進入【System Information】頁面。



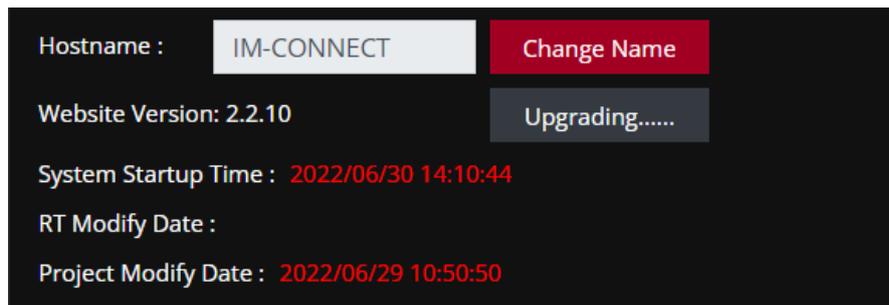
- B. 按下【Upgrade】。



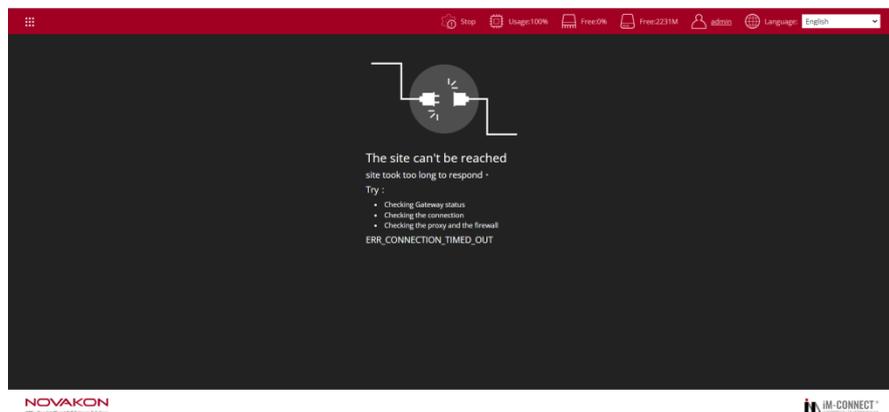
- C. 選擇新的軟體更新檔。本例為【tosibox.enc】，點選此檔後按下【open】。



D. 靜待安裝完成。



E. 安裝完成後，會看到網頁出現斷線畫面，表示此時GW-01正在重新開機。開機完畢後會重新連線。



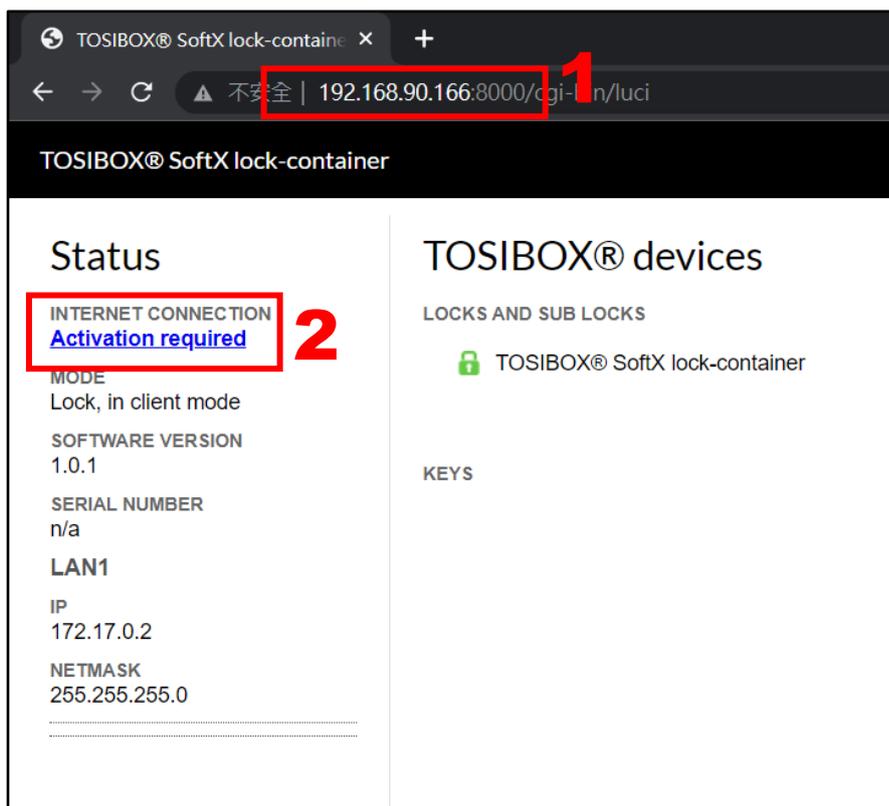
F. GW-01會重新兩次開機。此時即完成更新。

【請注意】：此版本為增加Tosibox功能，軟體版號並不會修改。若系統重開後仍然出現斷線的畫面，可嘗試將https://改成http://，或是重新整理網頁。

1.3 透過電腦瀏覽器啟動 TOSIBOX LfC

A. 打開瀏覽器，輸入HMI的IP(例如：http://XXX.XXX.XXX.XXX:8000)。本例為：

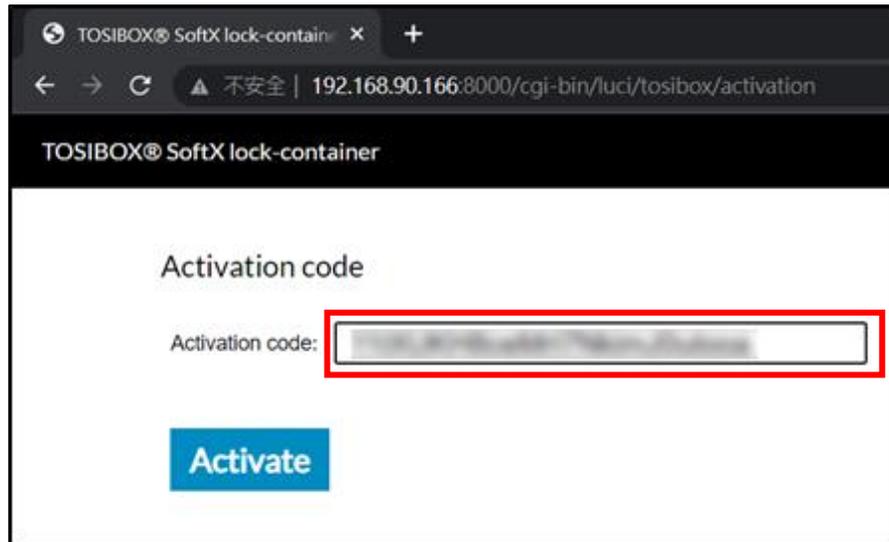
【192.168.90.166:8000】。



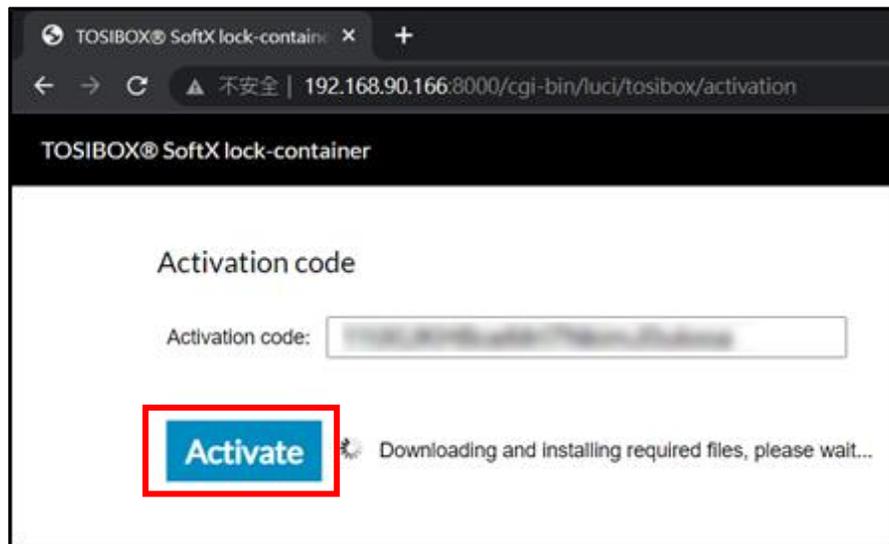
B. 按下紅框2的【Activation required】執行軟體鎖啟動設定。此步驟須先取得TOSIBOX啟

動碼(Activation code)，細節請洽TOSIBOX原廠或該授權經銷商

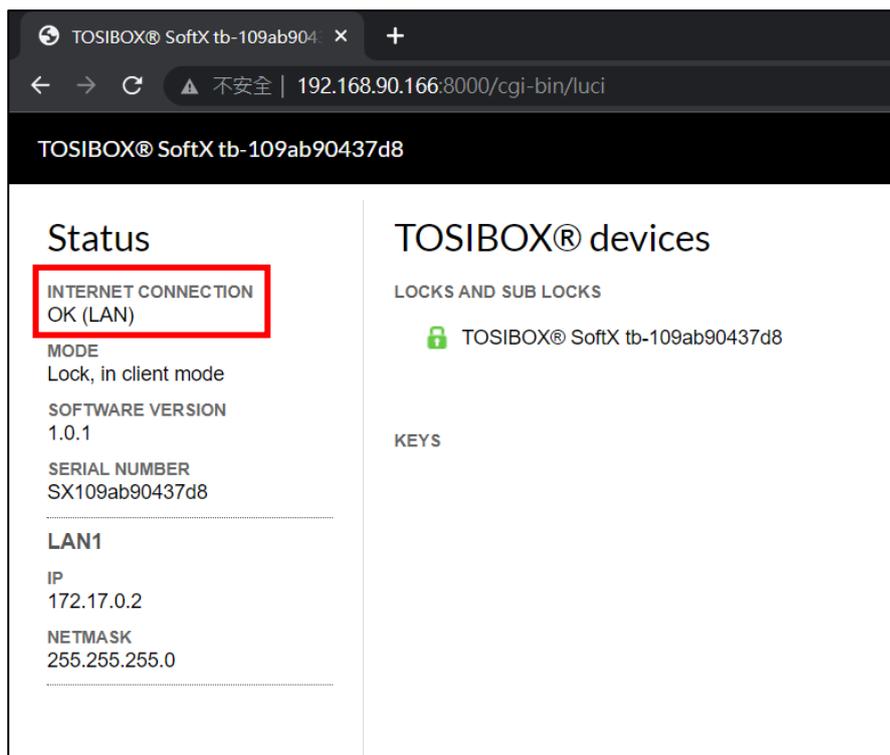
(www.tosibox.com/contact-us)。



C. 輸入測試用之Activation code (上例輸入之啟動碼只限用於單機連線)。



D. 按下【Activate】，靜待一段時間。



當狀態顯示【OK】，表示已啟動成功。



E. 網頁右上方點選【Login】登入設定。

Authorization Required

Username:

Password:

F. 輸入預設帳號：【admin】、及預設密碼：【admin】後按下【Login】。

TOSIBOX® SoftX tb-109ab90437d8 | STATUS SETTINGS NETWORK Logout

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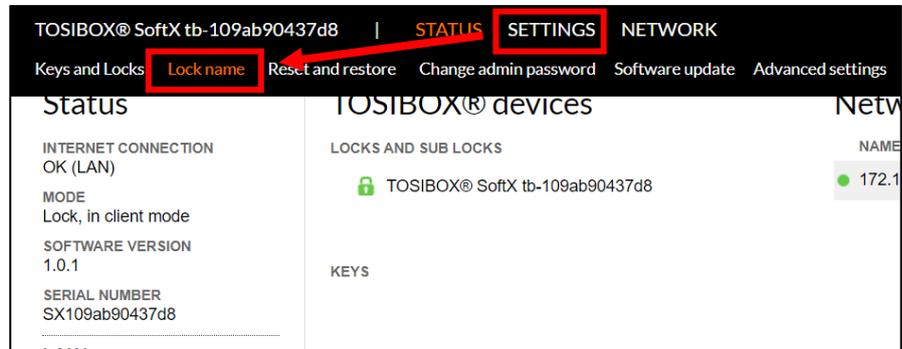
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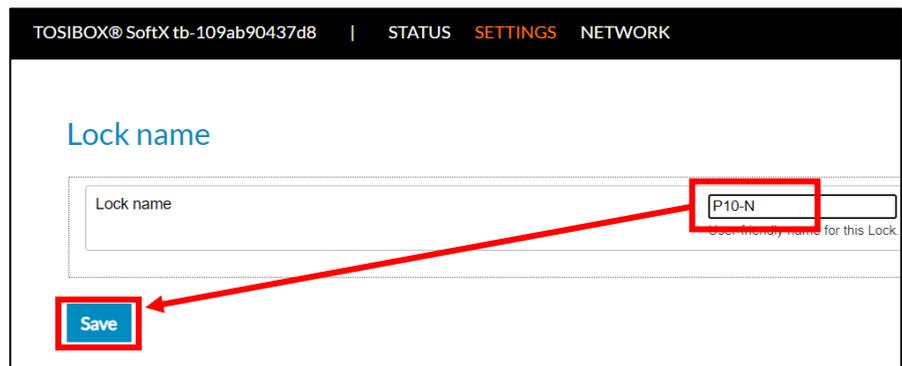
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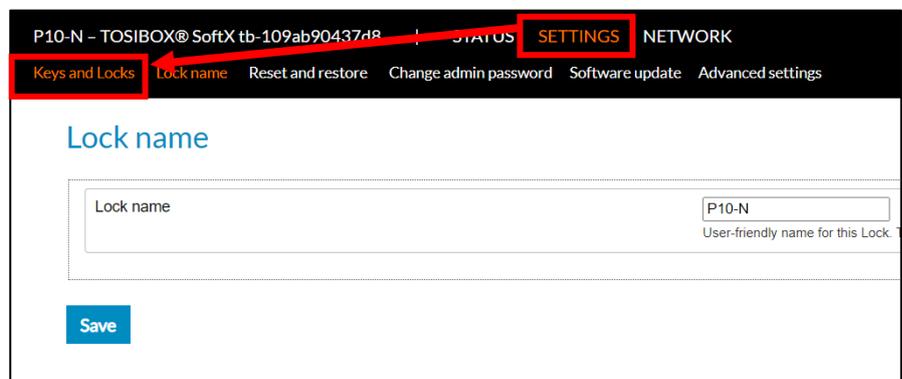
G. 出現使用者協議，滑到最下方。再按下【I ACCEPT】。



H. 回到首頁，進入上方的【SETTINGS】→【Lock name】。



I. 設定機器名稱(本例設定為【P10-N】)，再按下【Save】儲存設定。



J. 到畫面上方【SETTINGS】→【Keys and Locks】。

Keys and Locks

Keys
This section contains no values yet

Sub Keys
This section contains no values yet

SoftKeys
This section contains no values yet

Mobile Clients
This section contains no values yet

Sub Locks
This section contains no values yet

Remote matching
Remote matching code

Generate
Click Generate to begin remote matching.
For more instructions on Remote Matching, see [tosibox.com/FAQ](#)

Save

Remote matching
Remote matching code

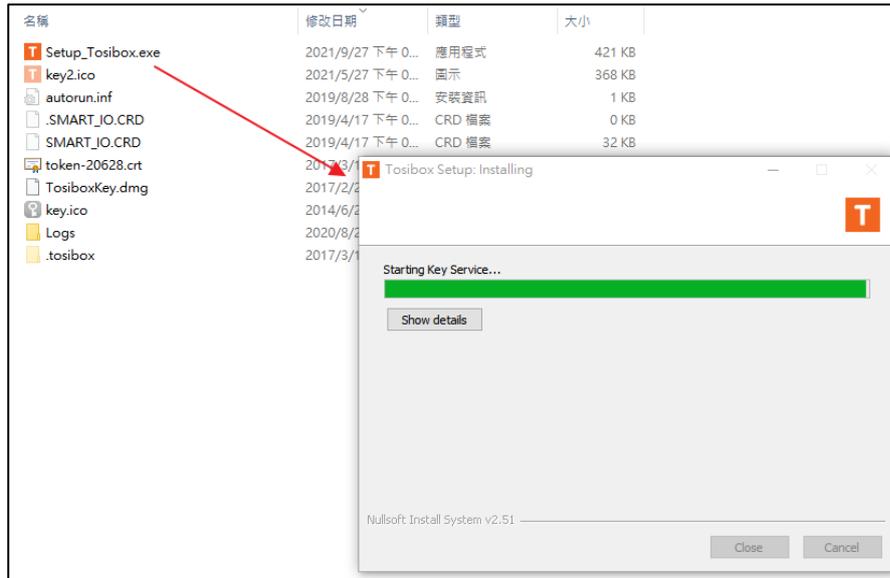
Cancel 1108ab80437d8cPQ3aEAOzEq3hCrTf
To complete matching, please enter this code in TOSIBOX Key application's Remote Matching wizard.
For more instructions on Remote Matching, see [tosibox.com/FAQ](#)

Save

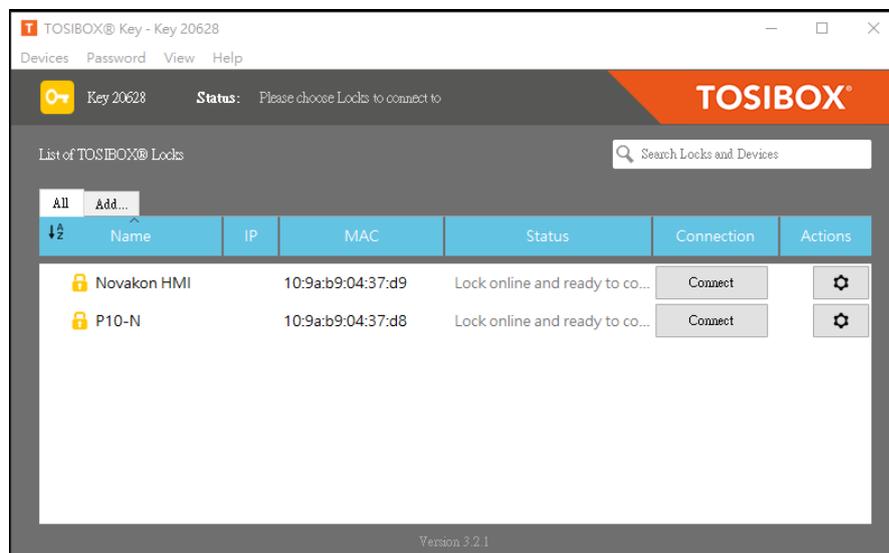
- K. 到畫面下方【Remote matching】(遠端配對)，按下【Generate】後會生成一組字串，這就是【MATCHING-CODE】(配對碼)。可先複製此字串，再按下Save。



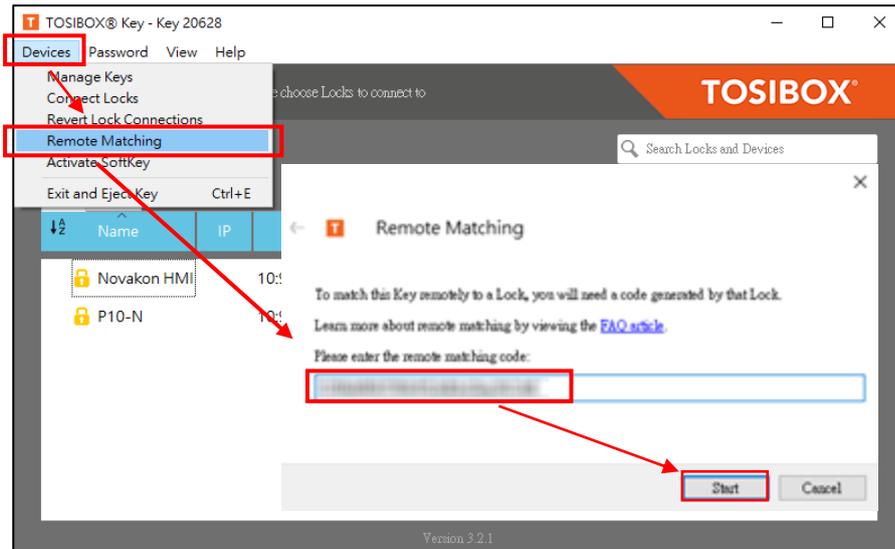
- L. 將TOSIBOX的硬體金鑰(hard key)插入PC。



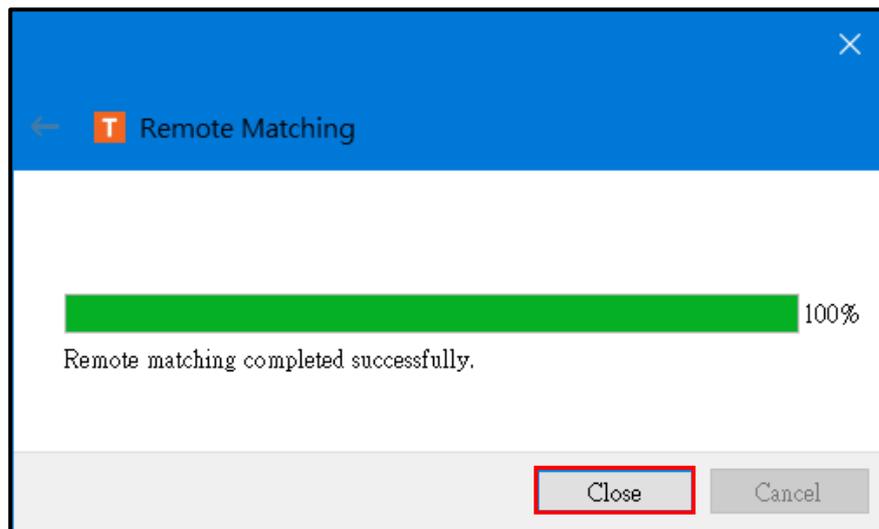
M. 如果已經安裝TOSIBOX軟體，系統會自動執行此軟體；如果未安裝，則需至TOSIBOX官網
www.tosibox.com安裝Setup_Tosibox.exe



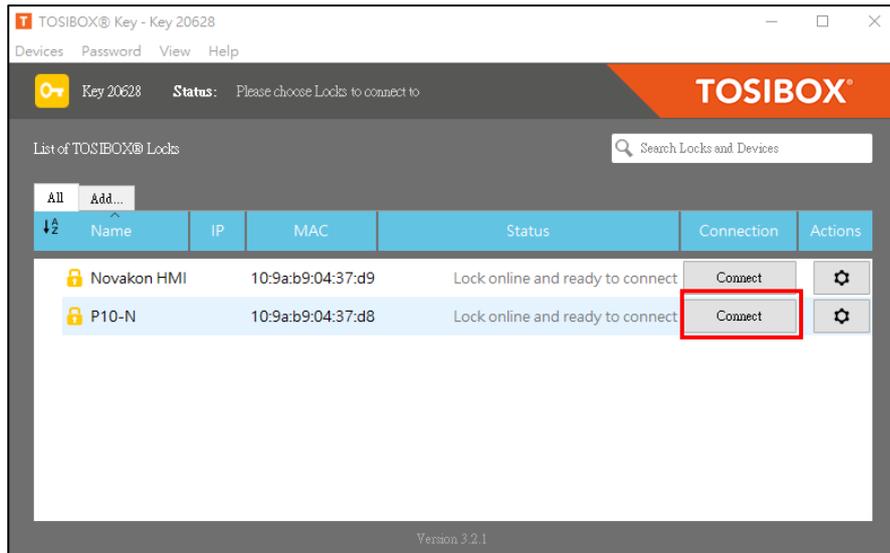
N. 點選桌面icon ，進入TOSIBOX設定頁面。



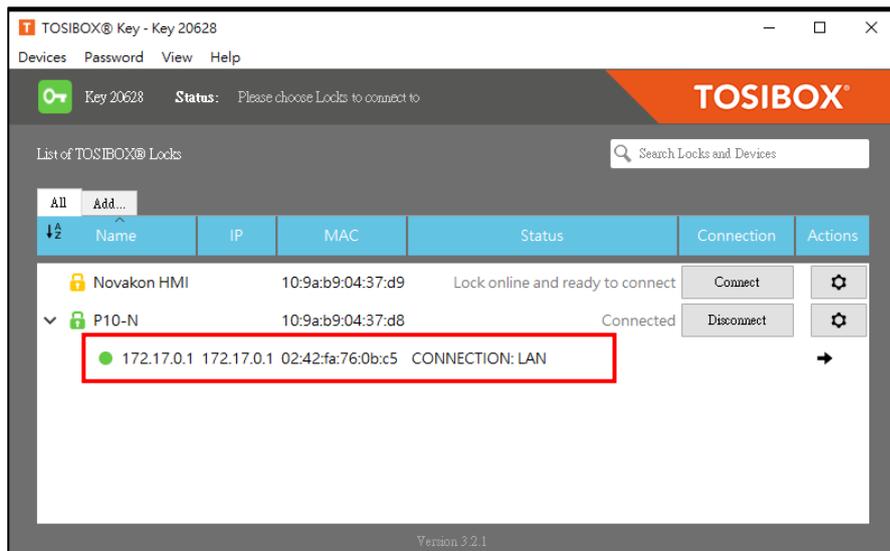
- O. 點擊右上方【Devices】→【Remote Matching】，跳出【Remote Matching】對話框後，輸入之前複製的【Maching Code】，再按下【Start】。



- P. 等待數秒後，跳出【Remote matching completed successfully】字樣（此時人機要執行應用），即表示【Machine Code】與 hard key已配對成功。



Q. 找到之前所設定機器名稱按下【Connect】。



R. 連線成功後，附屬下方會顯示綠燈代表連線成功。

P10-N – TOSIBOX® SoftX tb-109ab90437d8

Status

INTERNET CONNECTION
OK (LAN)

MODE
Lock, in client mode

SOFTWARE VERSION
1.0.1

SERIAL NUMBER
SX109ab90437d8

LAN1

IP
172.17.0.2

NETMASK
255.255.255.0

TOSIBOX® devices

LOCKS AND SUB LOCKS

 TOSIBOX® SoftX tb-109ab90437d8

KEYS

 Key 20628

S. 回到網頁後，紅框內表示與hard Key配對完成。

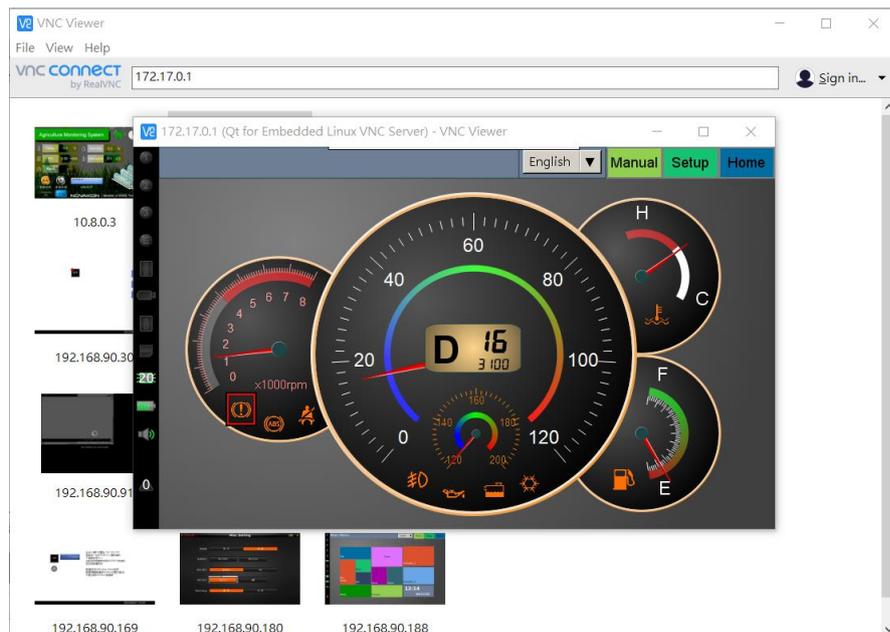
Network devices		
NAME	IP	MAC
 172.17.0.1	172.17.0.1	02:42:fa:76:0b:c5

T. 網頁右半部的IP：172.17.0.1，即是我們VPN的Device IP。

1.4 連線測試

1.4.1 HMI 測試

- A. 製作一個iFACE Designer[®]專案，並勾選啟動【專案屬性】→【VNC服務】。
- B. 編譯並下載韌體與專案。
- C. 執行HMI應用程式。
- D. 將TOSIBOX的hard key插入PC，並依上述說明設定連線。
- E. 連線完成後，開啟VNC軟體。
- F. 輸入連線的VPN的IP地址。如上說明，本例輸入172.17.0.1。
- G. 如下圖，電腦端執行VNC Client透過VPN與HMI遠端連線成功。



1.4.2 GW-01 測試

A. 直接輸入連線的VPN的IP地址(本例輸入172.17.0.1)。即可連上iM-Connect[®]的網頁，由電腦瀏覽器透過VPN遠端監控GW-01。

