Advantech SE Technical Share Document

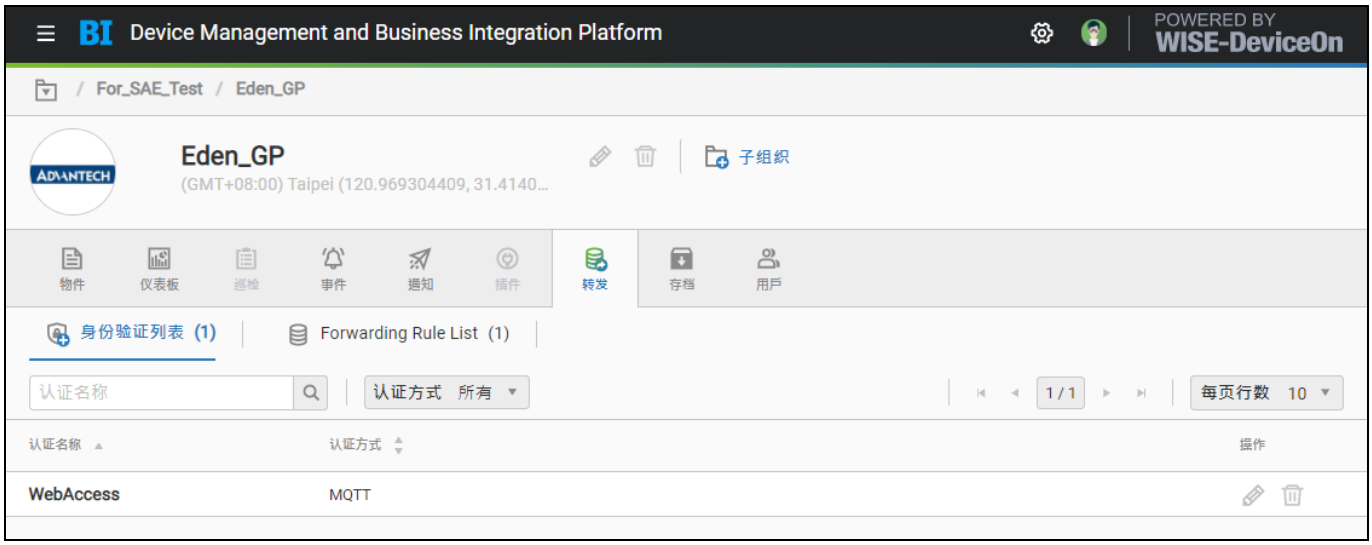
Date	2021 / 09 / 28		
Category	■ FAQ □ SOP □ Driver Tech Note	**Related Product**	WebAccess, DeviceOn-BI
Abstract	如何設定 DeviceOn-BI 內 Forwarding 功能		
Keyword	WebAccess, DeviceOn-BI, Forwarding		
Related OS			

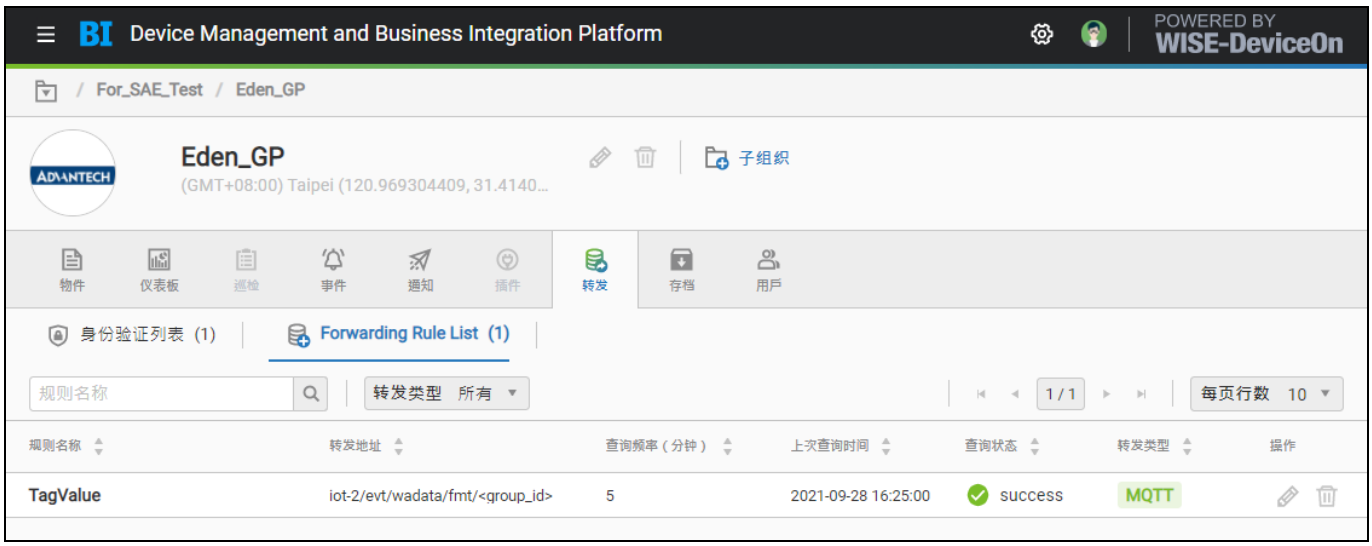
Revision History

Date	Version	Author	Reviewer	Description
2021/09/28	V1.0	Eden.Sun	Nick.Liu	First Edit.(DeviceOn/BI v-1.01.007)

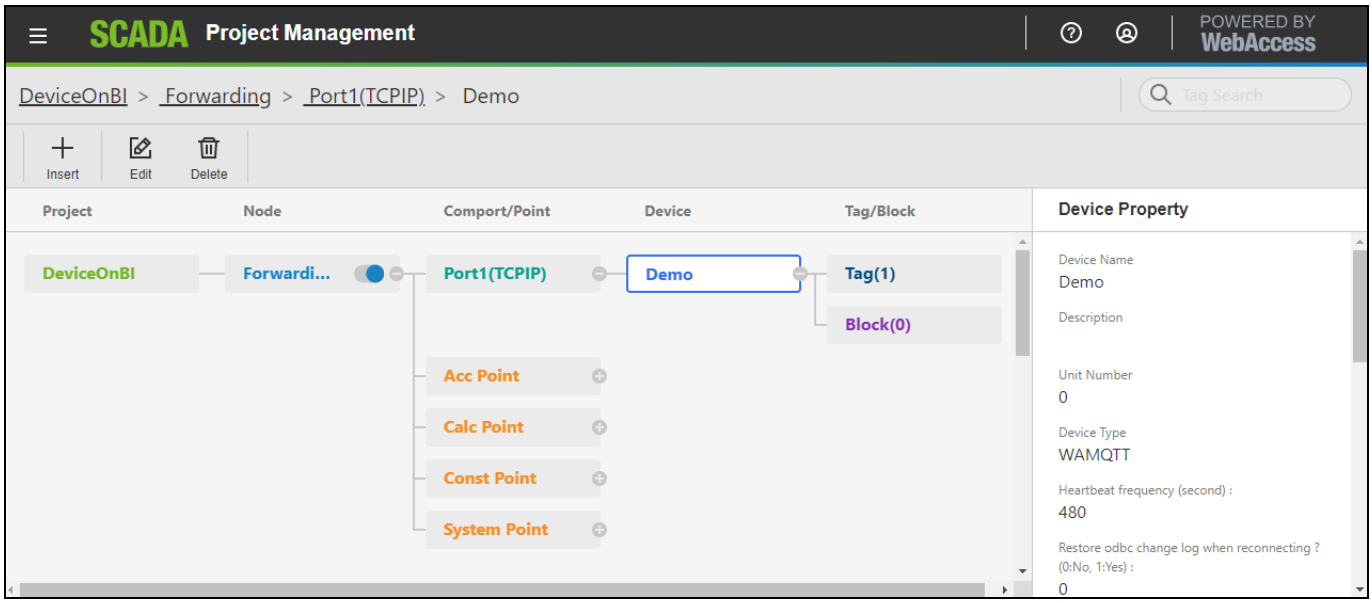
■ Problem Description & Architecture:

如何在 WISE-DeviceOn/BI 中，設定轉發(Forwarding)的功能。

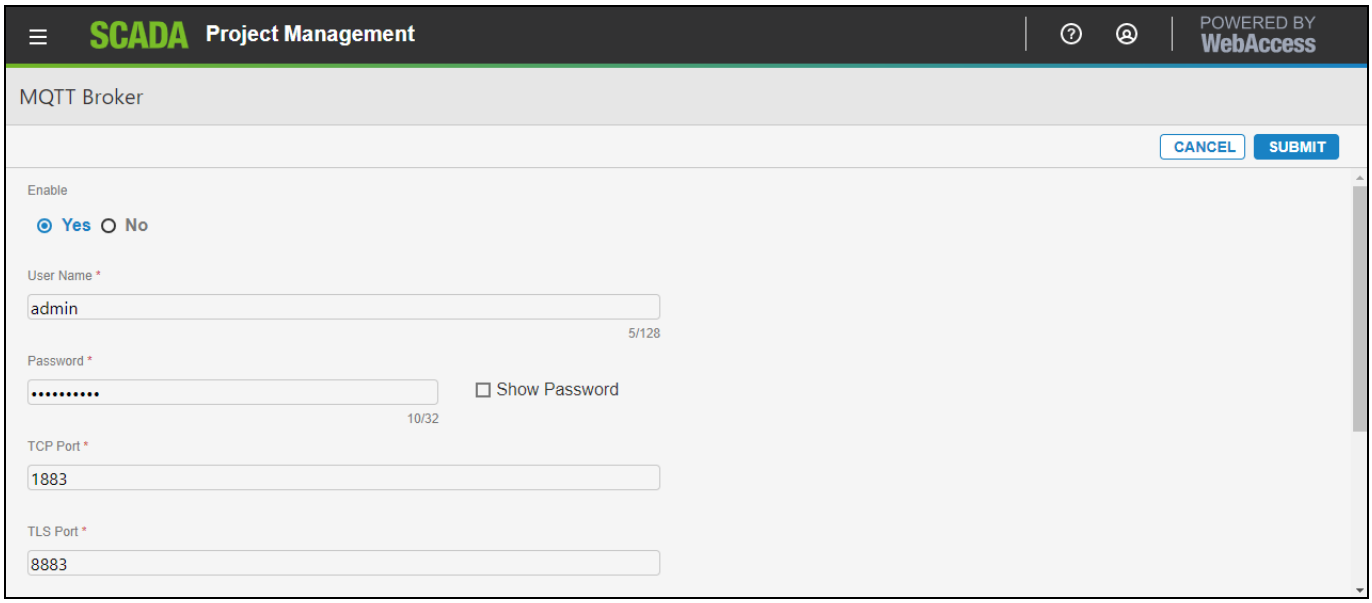




※本範例使用 WebAccess/SCADA (MQTT)，作為發送目標，需在其建立專案、監控節點、設備、測點。



※本範例使用 WebAccess/SCADA 的 MQTT Broker，需啟用功能並在其設置帳號、密碼、通訊口。



※針對 WebAccess/SCADA MQTT 封包的格式需求。https://downloadt.advantech.com/download/downloadsr.aspx?File_Id=1-24ZN57P

ADVANTECH Enabling an Intelligent Planet

WebAccess MQTT

Design Specification for Device

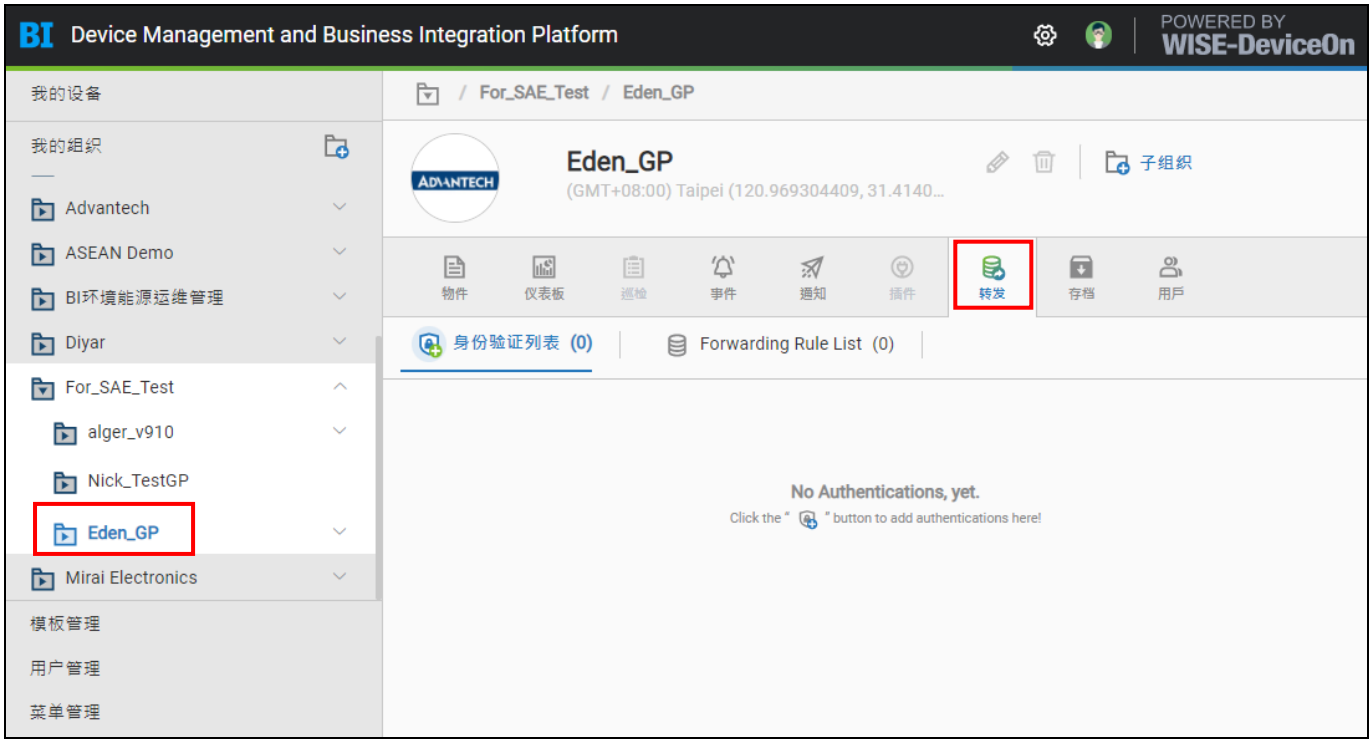
Version：1.3.5

Example for normal value:

```
{
    "d": {
        "WISE4010-7F28A7": {
            "Val": {
                "W4010-28A7:Fz1Volt": 1213.48,
                "W4010-28A7:Fz1Temp": 63.81,
                "W4010-28A7:Fz1Desc": "Freezer 1",
            }
        }
    },
    "ts": "2020-04-17T10:19:51+08:00"
}
```

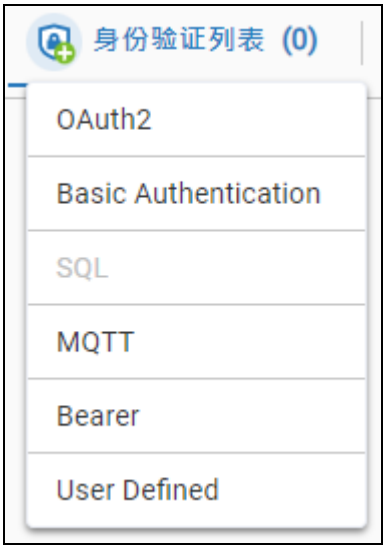
■ **Brief Solution - Step by Step:**

1. 登入 DeviceOn/BI，在組織中的任一組織 Organization 都可以編輯 Forwarding 轉發。



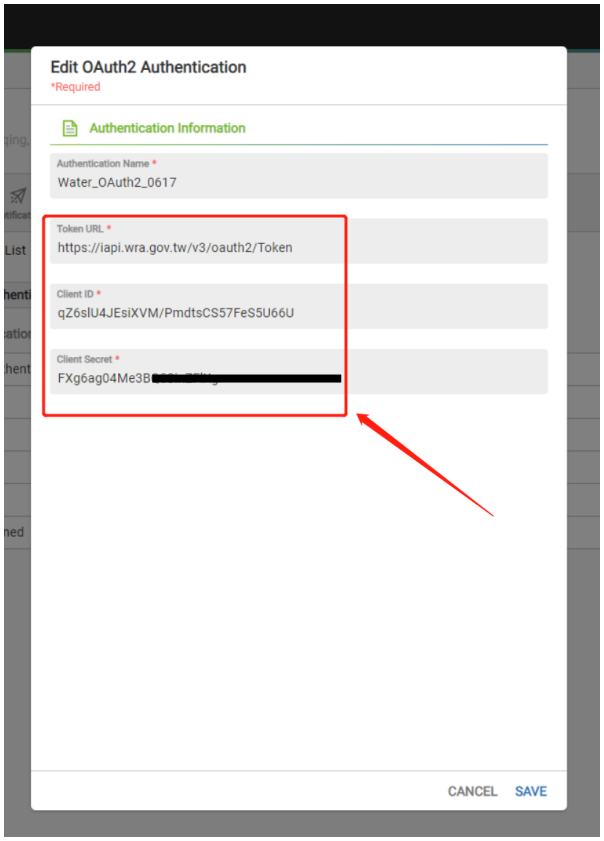
2. 請依據發送目標提供的驗證方式，建立連線身分驗證， 共有五種方法可以使用。

1. OAuth2
2. Basic Authentication
3. SQL (開發中)
4. MQTT
5. Bearer
6. User Defined

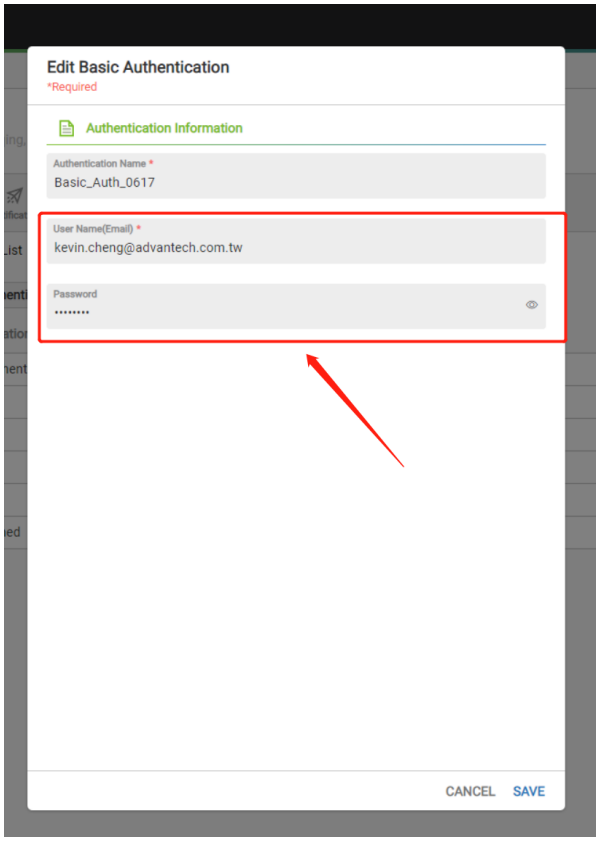


※五種對應方式所需要的驗證資訊

1. OAuth2

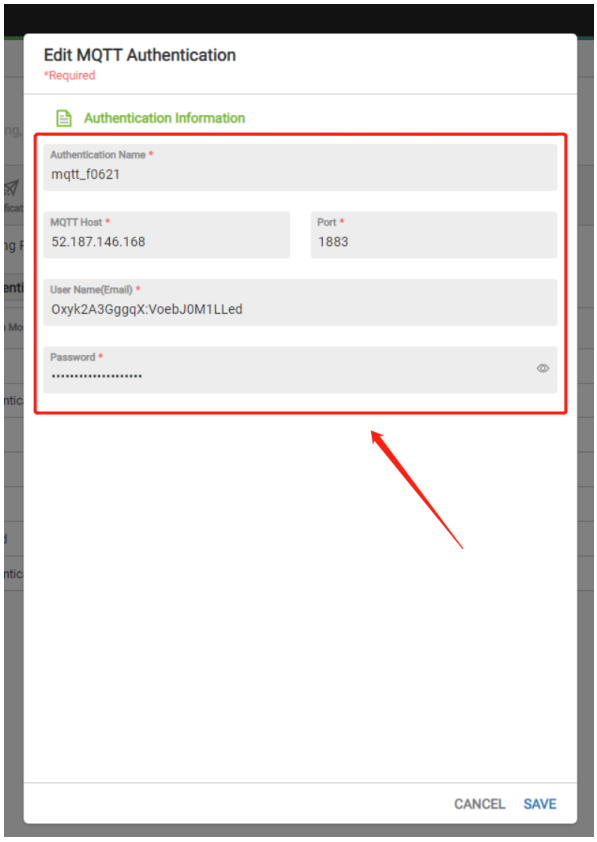


2. Basic Authentication

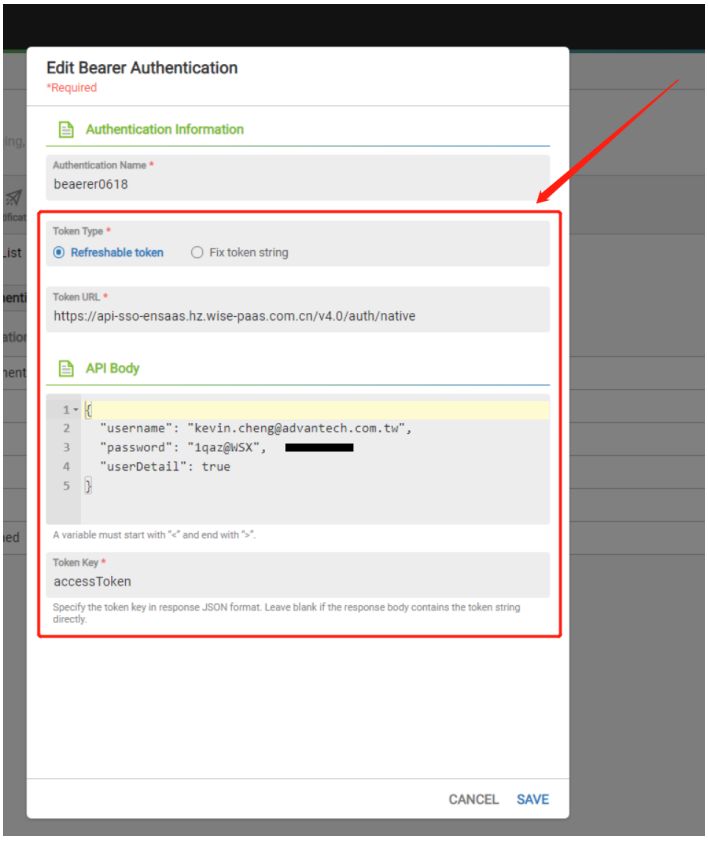


3. SQL (開發中)

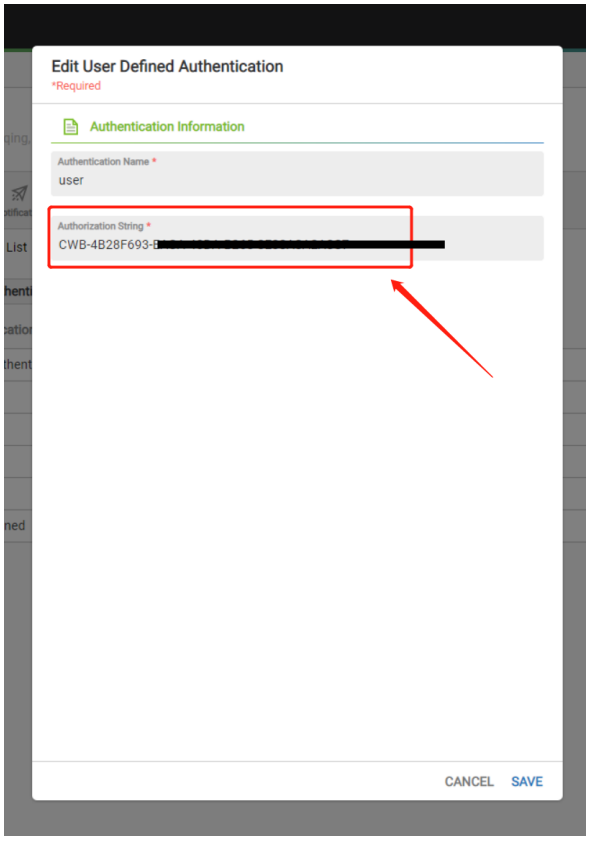
4. MQTT



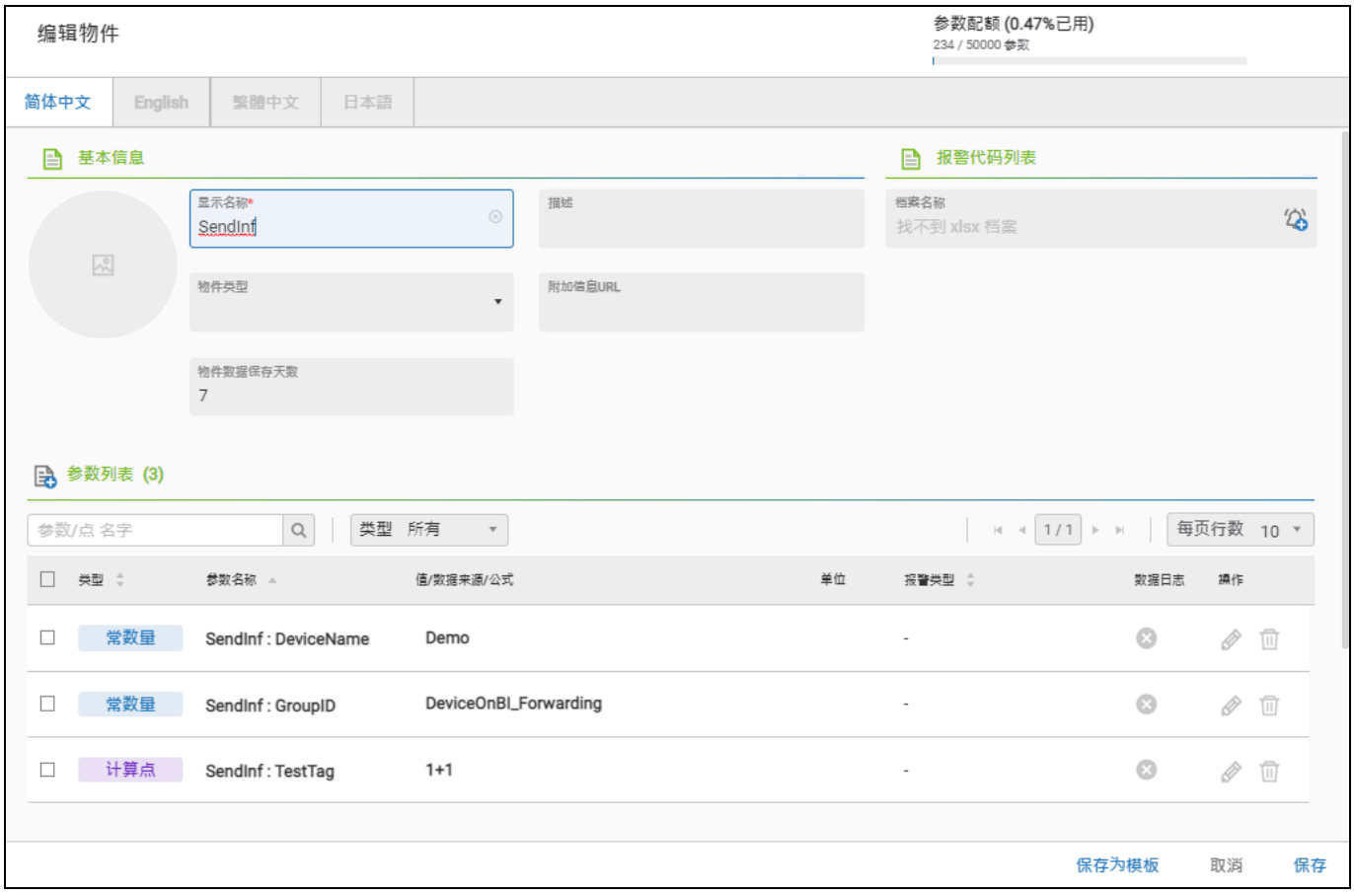
5. Bearer



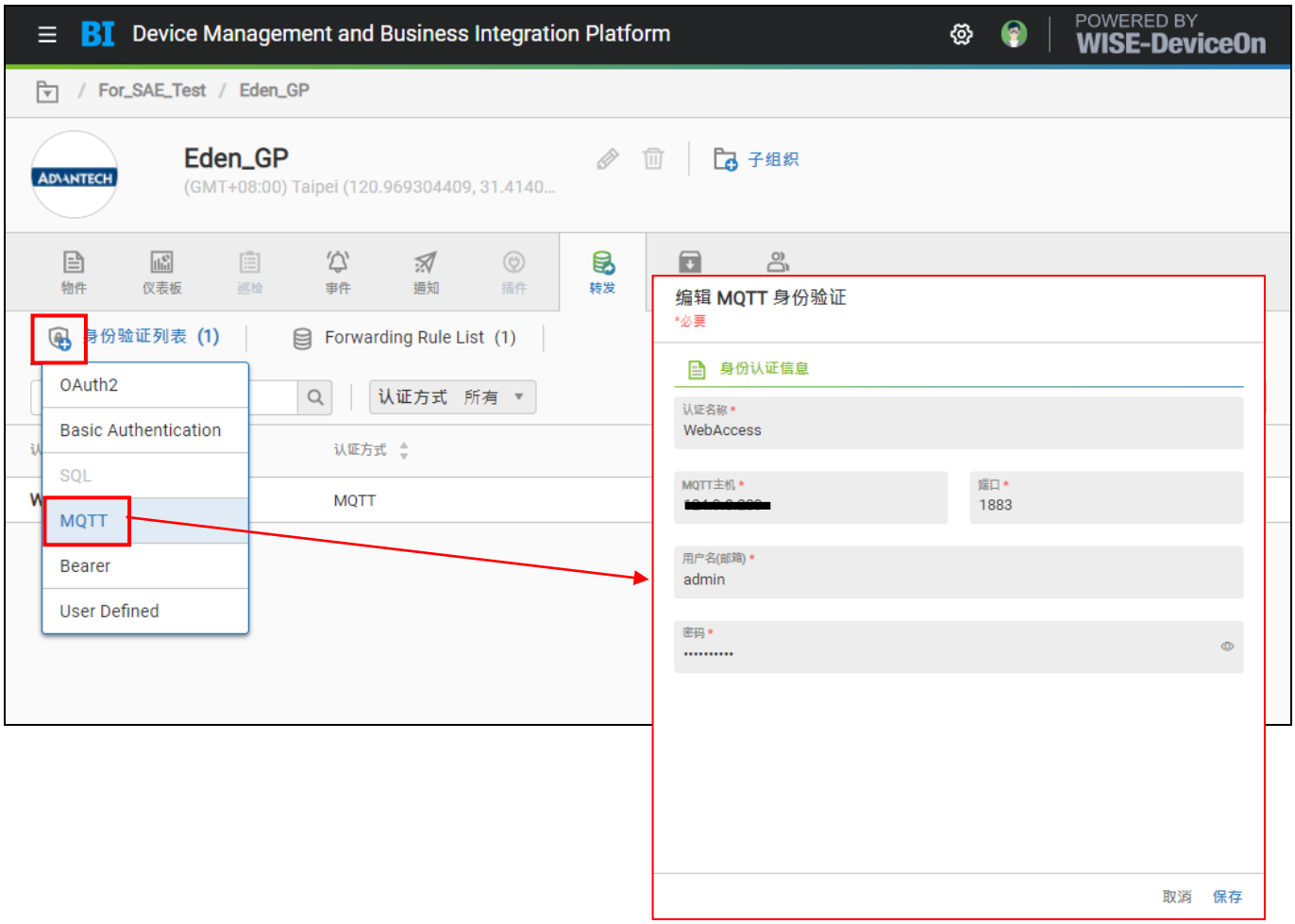
6. User Defined



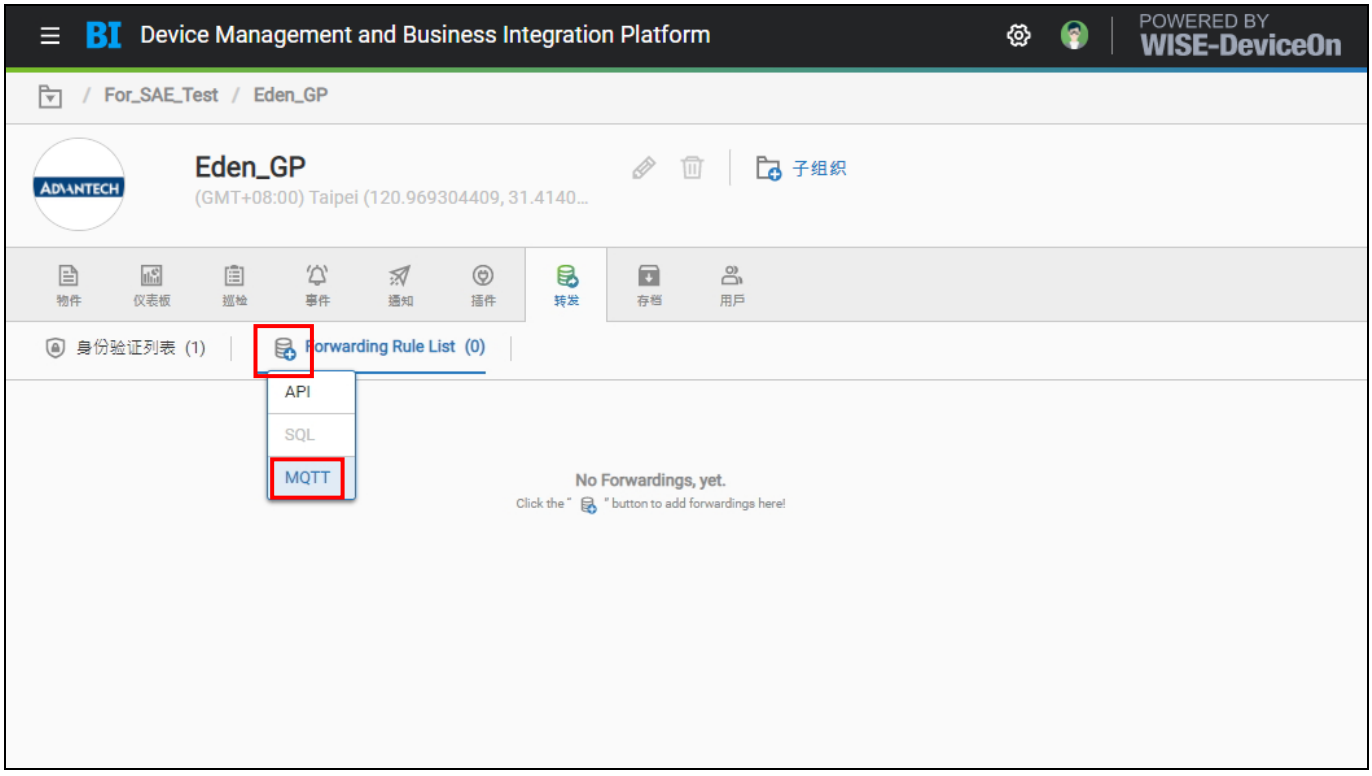
3. 建立物件(Object)與參數(Parameter)，此參數將用在後續傳送數據時使用



4. 點選添加身分驗證，依建立下來資訊填寫的連線訊息

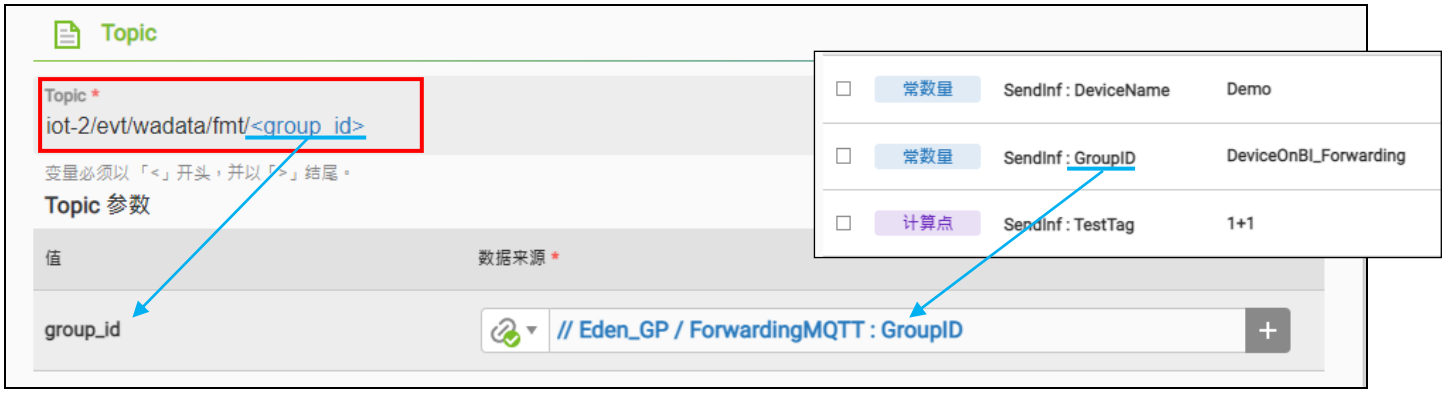


5. 點選添加發送規則，並使用 MQTT 封包格式。

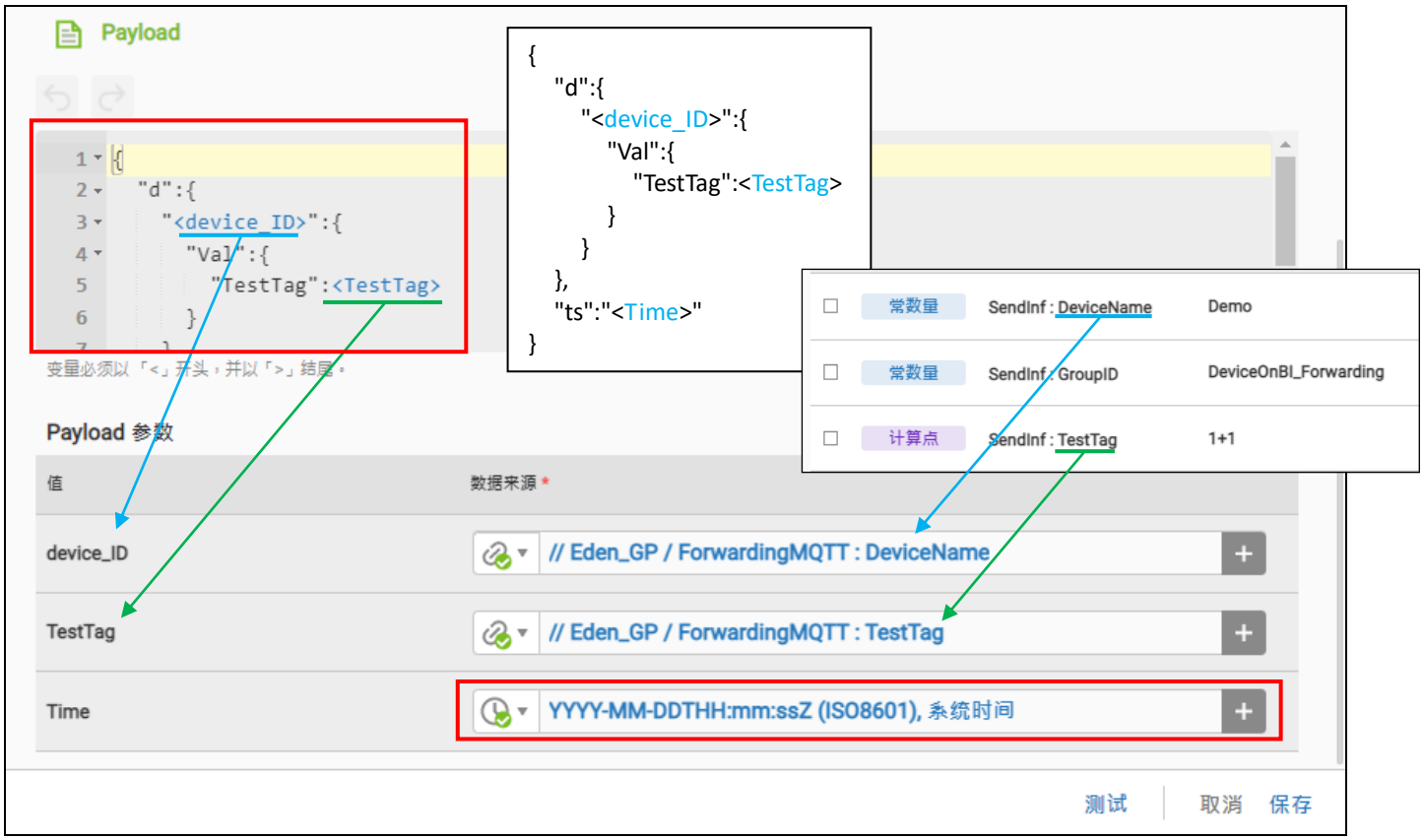


5-A. 設定發送規則，給定規則名稱 (驗證選擇第 4 步建立的 MQTT)

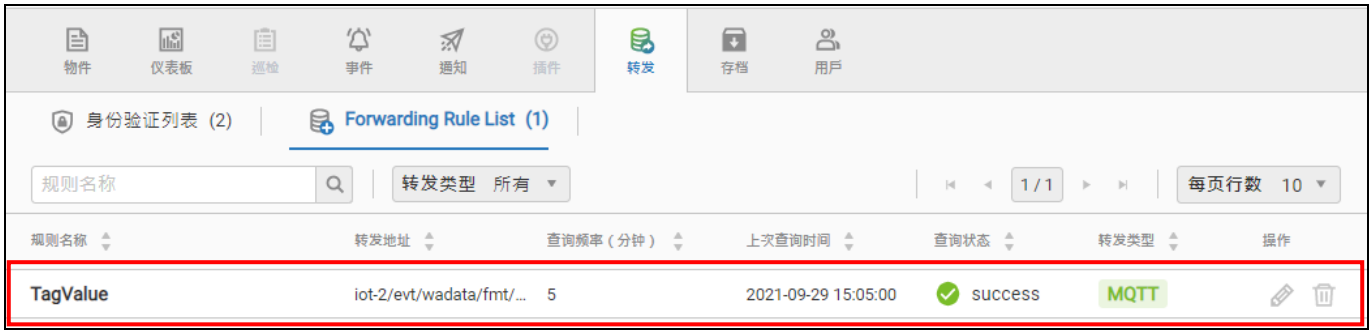
5-B. 設定 MQTT Topic 格式 (範例使用 Data Format 獲取 Tag Value，文件第 2.1.1 章節，其中帶入 BI 參數值作為變數)



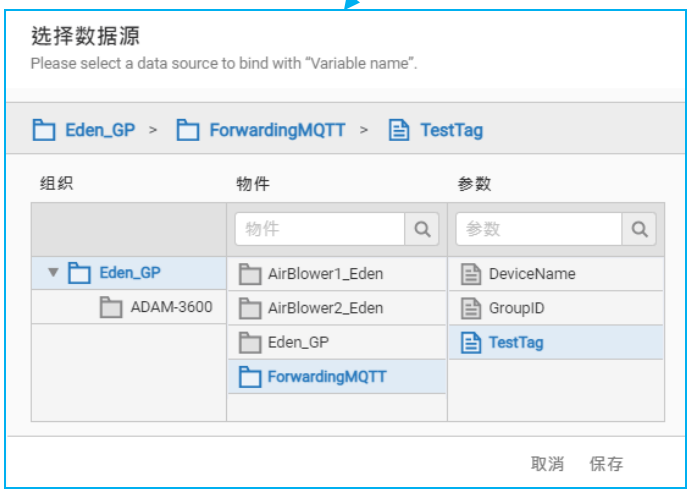
5-C. 依據發送目標設定 MQTT 發送封包 (範例傳送一個指定設備中 TestTag 數值並附上當前系統時間)

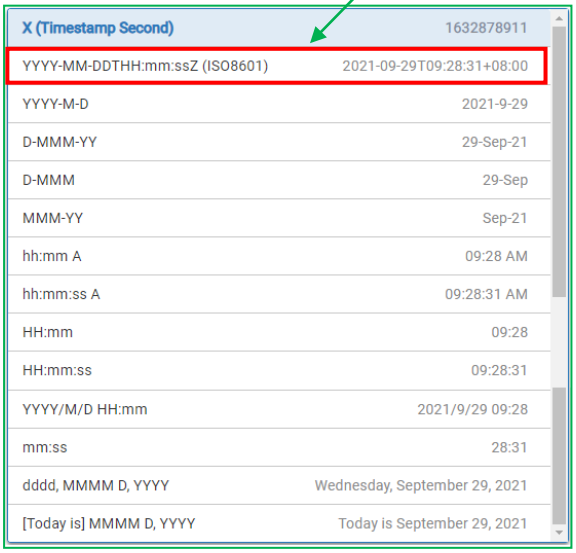


5-D. 設定插件完成後，點選保存

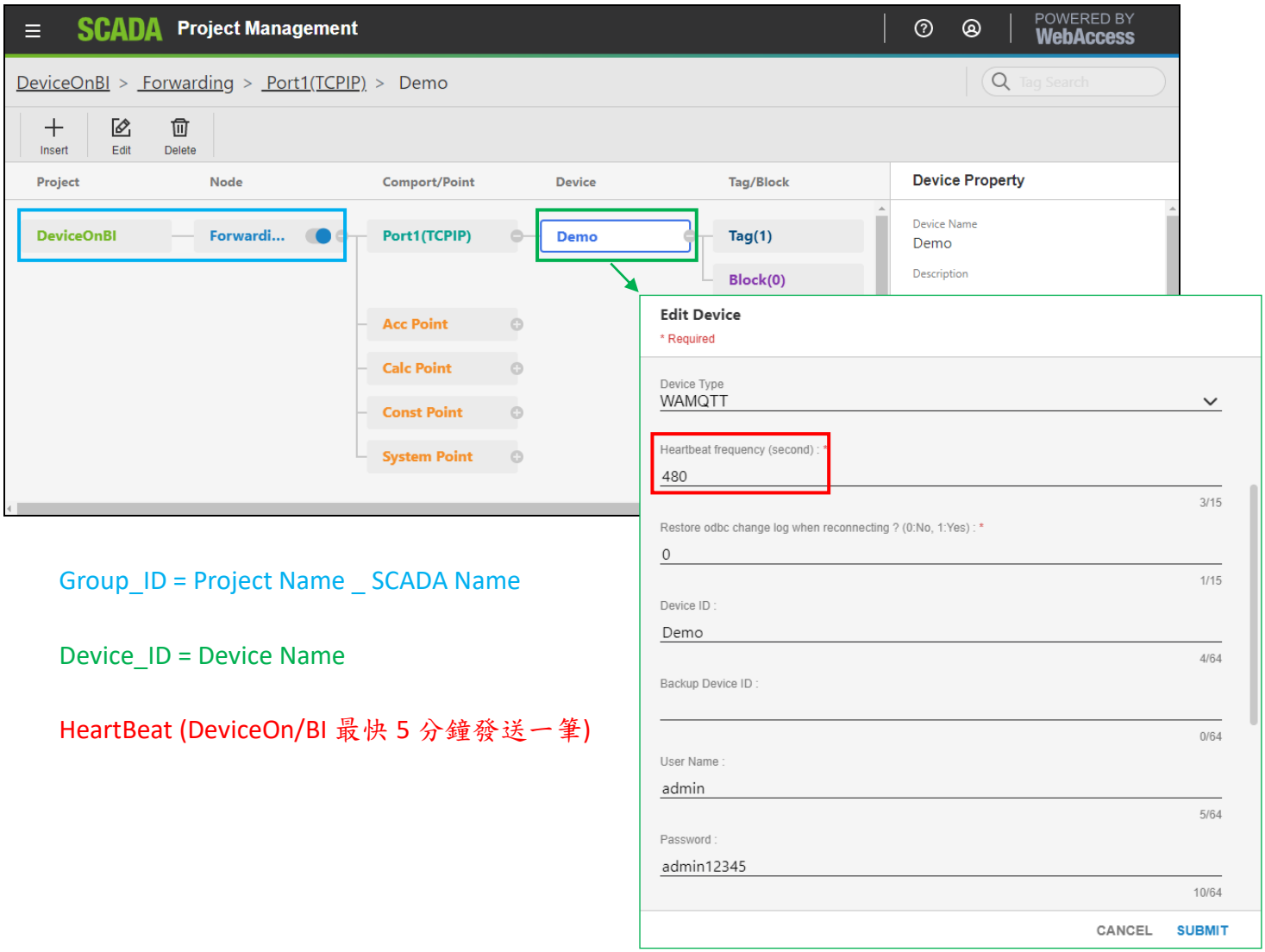


※其中可以自訂義變量名稱，並選擇參數 or 時間作為變數來帶入變量 (變量名稱請放置於『<』『>』符號中)





※其中帶入得變數，請依據 WebAccess/SCADA 內的設定進行配置 (建議設備的 Heartbeat 時間大於 5 分鐘)

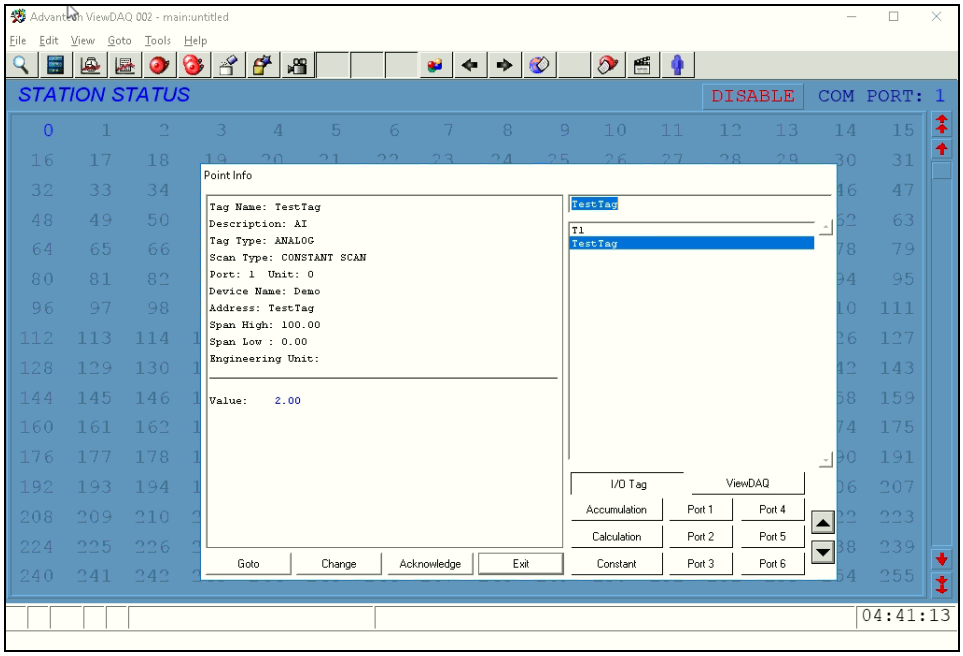


Group_ID = Project Name _ SCADA Name

Device_ID = Device Name

HeartBeat (DeviceOn/BI 最快 5 分鐘發送一筆)

6. 最後經由 MQTT 將數據由 DeviceON/BI 轉發至 WebAccess/SCADA



- **Pin Definition (in case of serial connection):**
- **Reference:**