

I DeviceOn (Standalone)

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I DeviceOn Server 설치

1. 시스템 요구 사항 (서버)

A. Server hardware requirements

- ①. Intel® Core™ i5 2.3 GHz CPU or above 8GB RAM
- ②. 25 GB root partition for the system
- ③. 100 GB data storage partition (for documents and indexing)

B. Server operating system support:

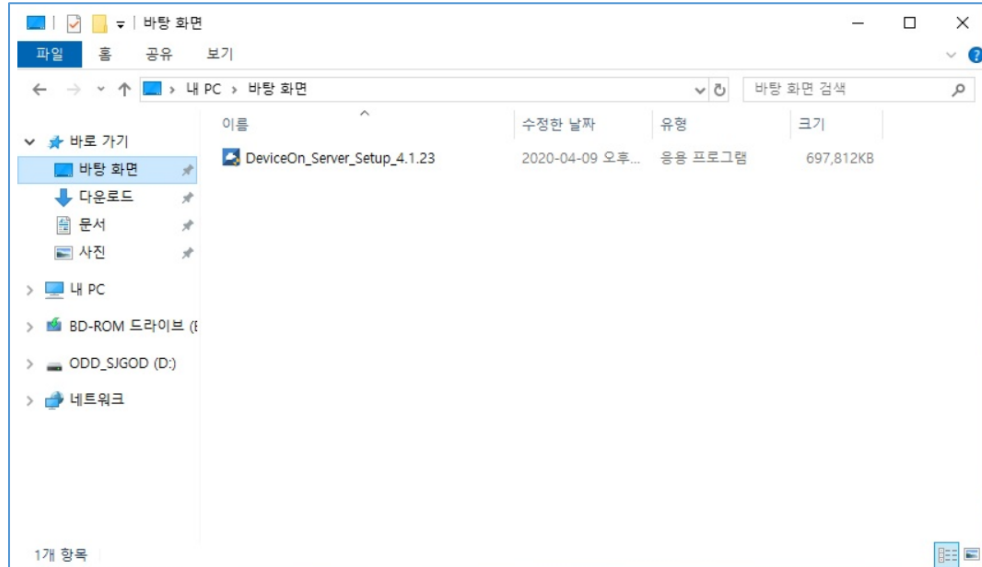
- ①. Windows Server 2008 R2 64-bit
- ②. Windows Server 2012 R2 64-bit
- ③. Windows Server 2016 Standard 64-bit
- ④. Windows Server 2019 Standard 64-bit
- ⑤. Windows 10 64-bit
- ⑥. Windows 8/8.1 64-bit
- ⑦. Windows 7 SP1 64-bit

2. DeviceOn 설치 파일 다운로드

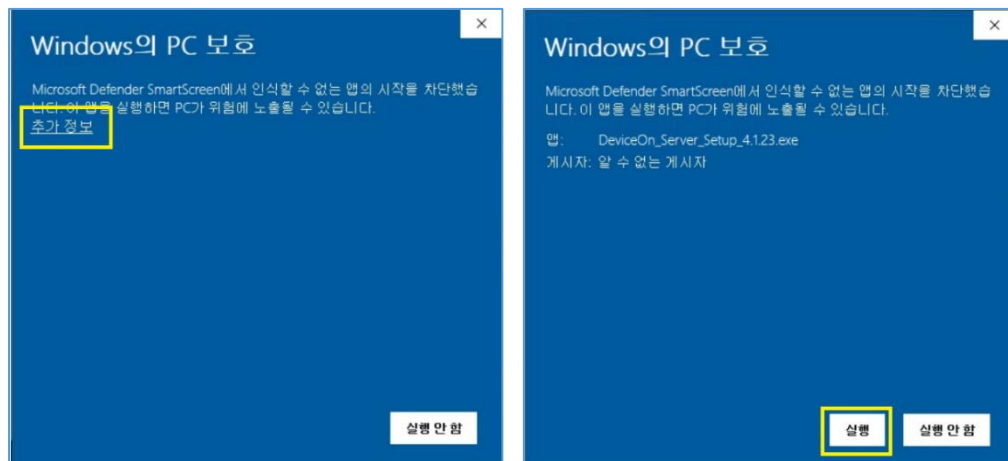
A. [DeviceOn Server 프로그램 다운로드 링크](#)

3. DeviceOn Server 설치

A. DeviceOn_Server_Setup_4.1.23.exe 실행



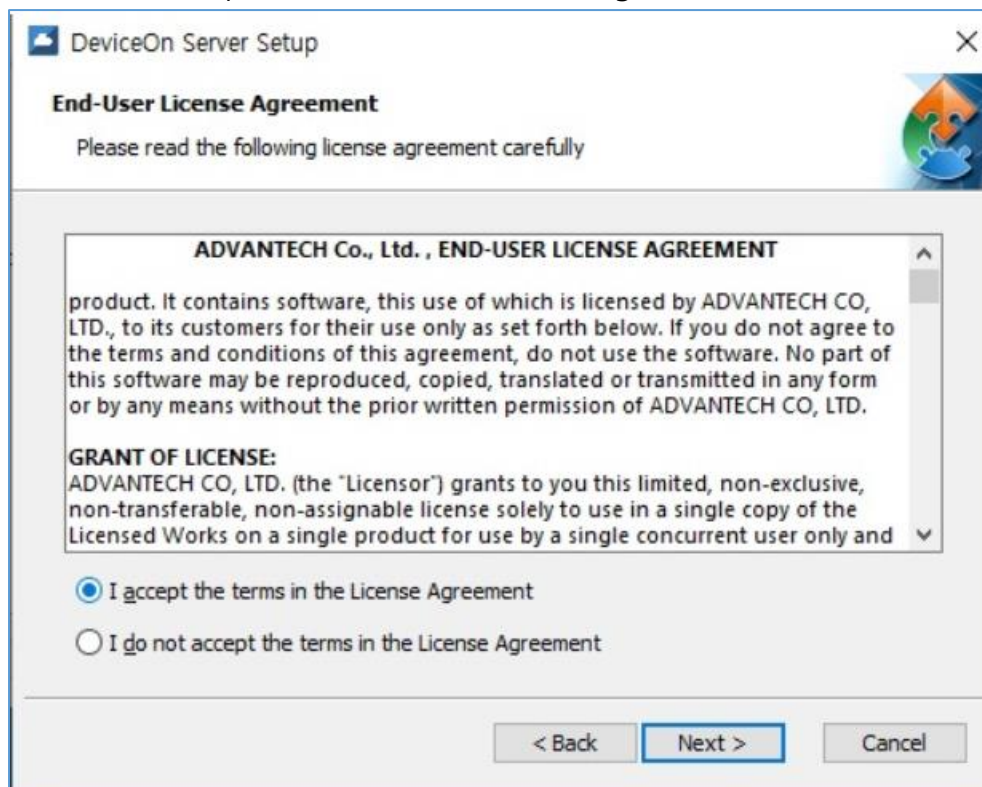
B. Windows 10 의 경우 아래와 같은 화면에서 "추가 정보"를 클릭 후 실행



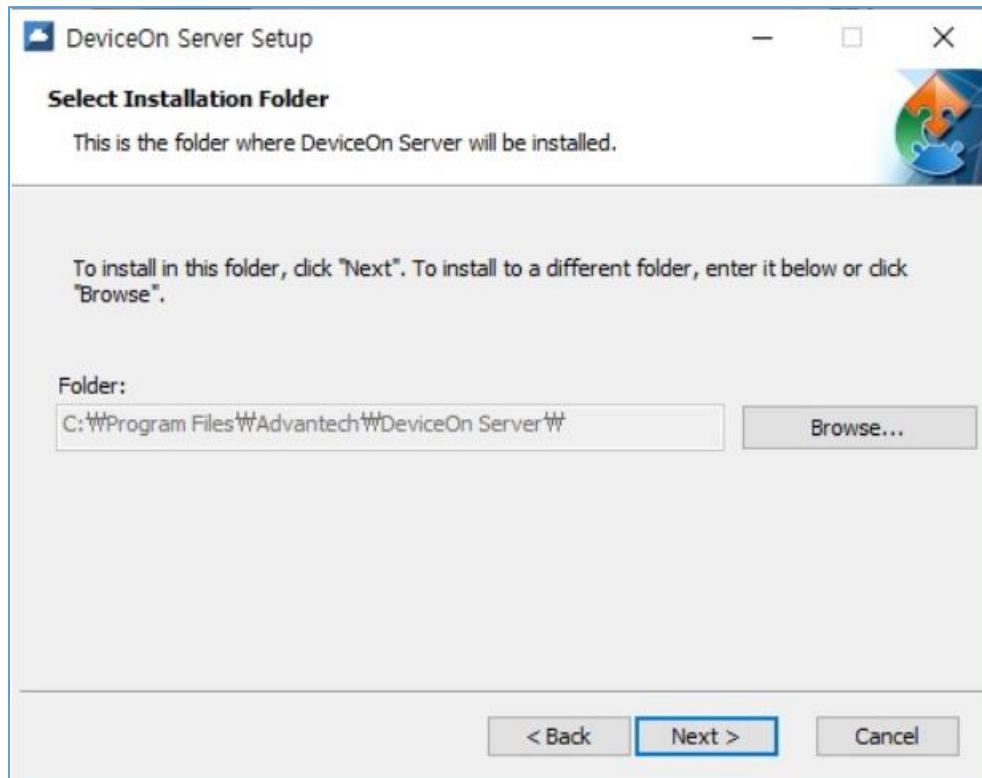
C. DeviceOn Server Setup Wizard 에서 "Next"



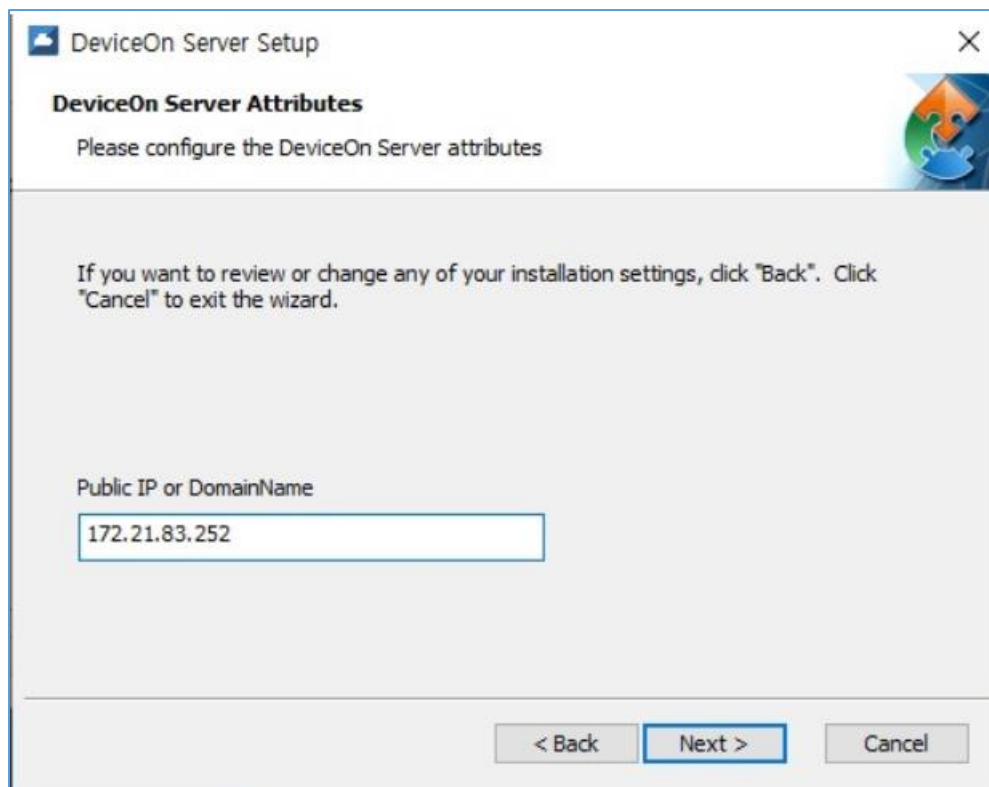
D. SLA 에서 "I accept the terms in the License Agreement" 선택 후 Next 클릭



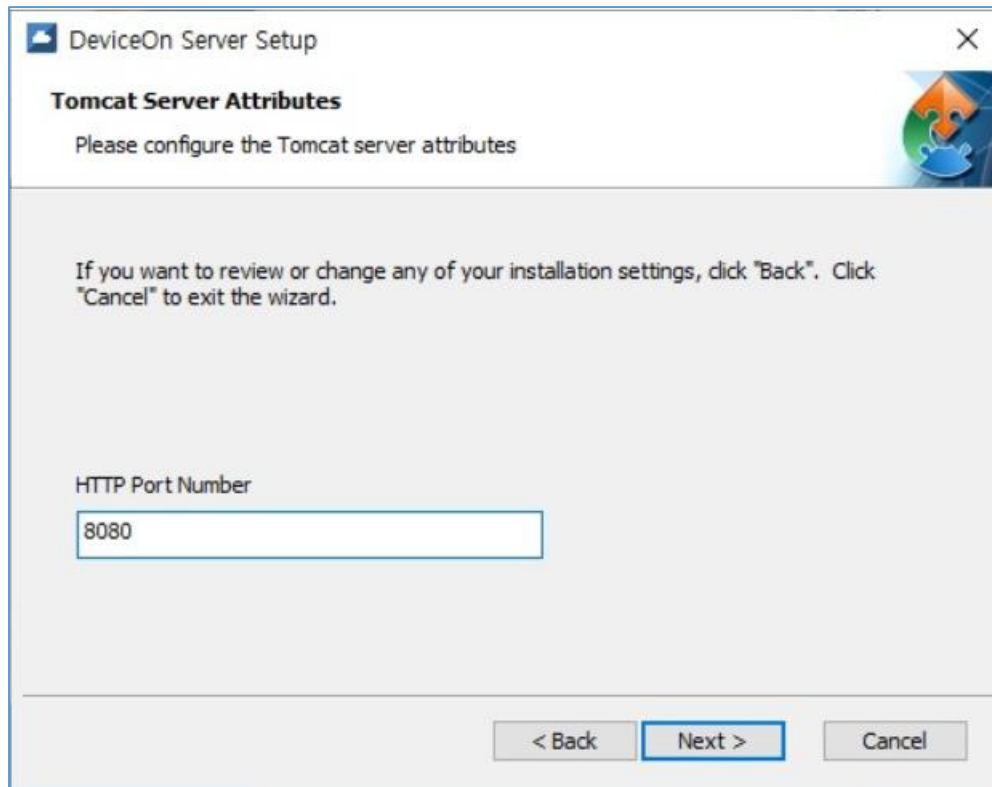
- E. DeviceOn 프로그램이 설치될 위치는 선택 후 "Next"



- F. Public IP 또는 Domain 설정

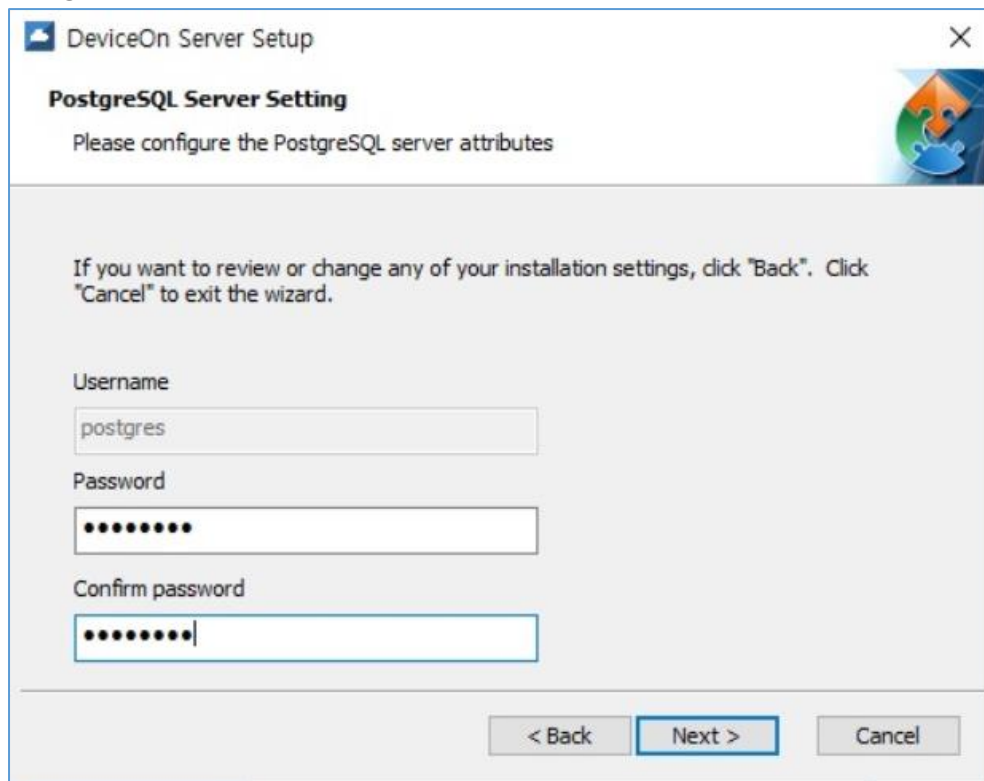


- G. HTTP 로 접속할 경우의 Port 번호 (Default : 8080)



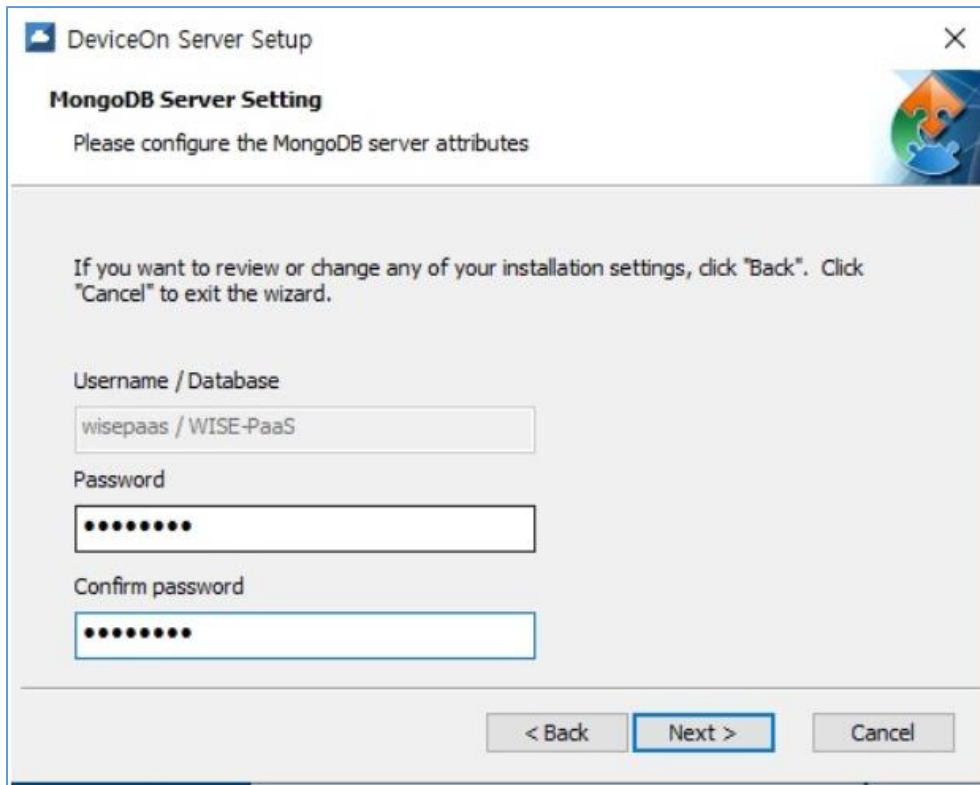
The screenshot shows a window titled "DeviceOn Server Setup" with a close button (X) in the top right corner. Below the title bar, there is a sub-header "Tomcat Server Attributes" and a prompt "Please configure the Tomcat server attributes". A paragraph of text reads: "If you want to review or change any of your installation settings, click 'Back'. Click 'Cancel' to exit the wizard." Below this text, there is a label "HTTP Port Number" and a text input field containing the value "8080". At the bottom of the window, there are three buttons: "< Back", "Next >" (which is highlighted with a blue border), and "Cancel".

- H. PostgreSQL 비밀번호 설정 : (영문 대소문자, 숫자, 특수문자 포함 8 자리이상)



The screenshot shows a window titled "DeviceOn Server Setup" with a close button (X) in the top right corner. Below the title bar, there is a sub-header "PostgreSQL Server Setting" and a prompt "Please configure the PostgreSQL server attributes". A paragraph of text reads: "If you want to review or change any of your installation settings, click 'Back'. Click 'Cancel' to exit the wizard." Below this text, there are three labels and corresponding input fields: "Username" with a text input field containing "postgres", "Password" with a password input field (masked with dots), and "Confirm password" with a password input field (masked with dots). At the bottom of the window, there are three buttons: "< Back", "Next >" (which is highlighted with a blue border), and "Cancel".

- I. MongoDB 비밀번호 설정 : (영문 대소문자, 숫자, 특수문자 포함 8 자리이상)



DeviceOn Server Setup

MongoDB Server Setting

Please configure the MongoDB server attributes

If you want to review or change any of your installation settings, click "Back". Click "Cancel" to exit the wizard.

Username / Database

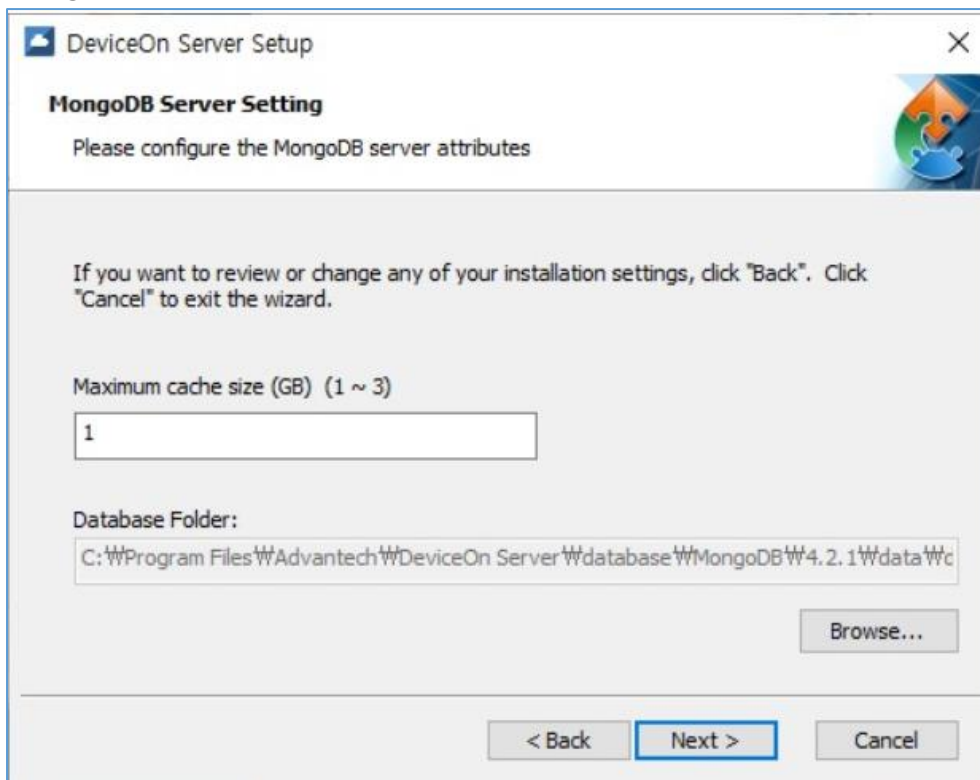
wisepaas / WISE-PaaS

Password

Confirm password

< Back Next > Cancel

- J. MongoDB의 데이터 사이즈 및 DB 저장위치 설정 (Default : 1GB)



DeviceOn Server Setup

MongoDB Server Setting

Please configure the MongoDB server attributes

If you want to review or change any of your installation settings, click "Back". Click "Cancel" to exit the wizard.

Maximum cache size (GB) (1 ~ 3)

1

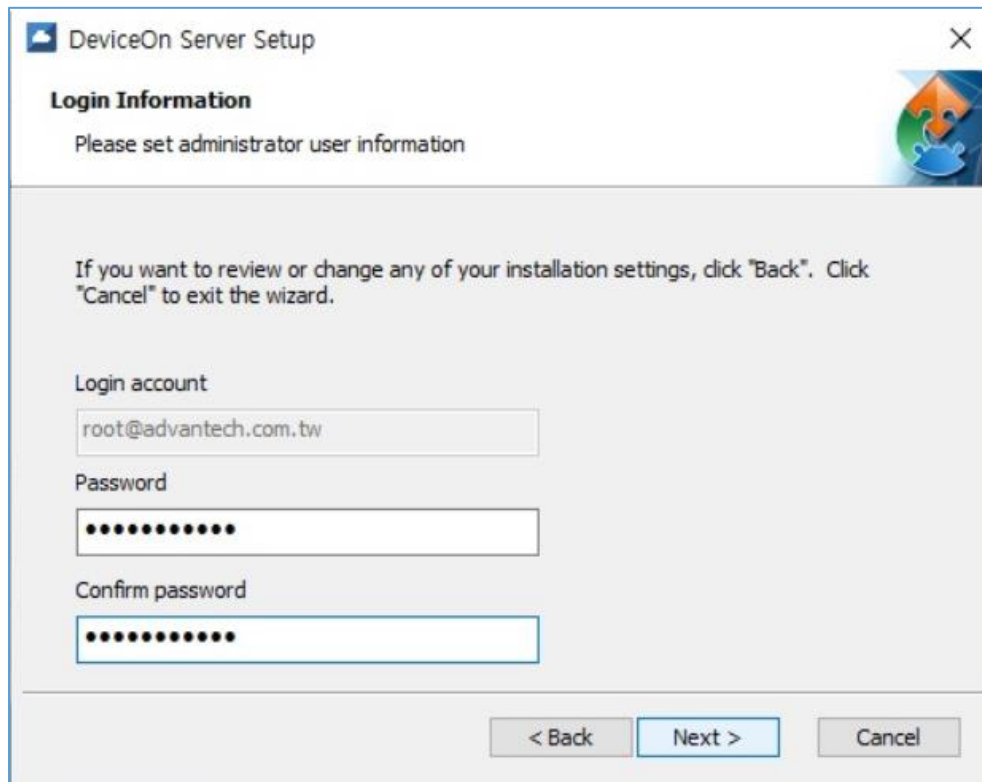
Database Folder:

C:\Program Files\Advantech\DeviceOn Server\database\MongoDB\4.2.1\data

Browse...

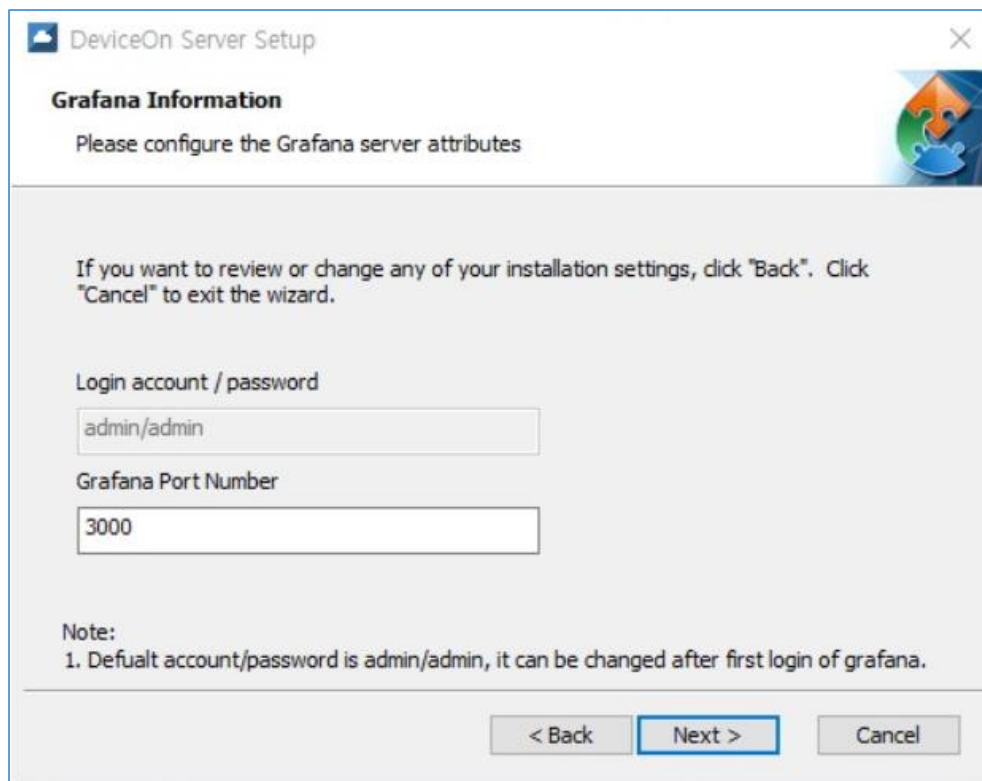
< Back Next > Cancel

- K. **DeviceOn admin 계정 비밀번호** (영문 대소문자, 숫자, 특수문자 포함 8 자리이상)



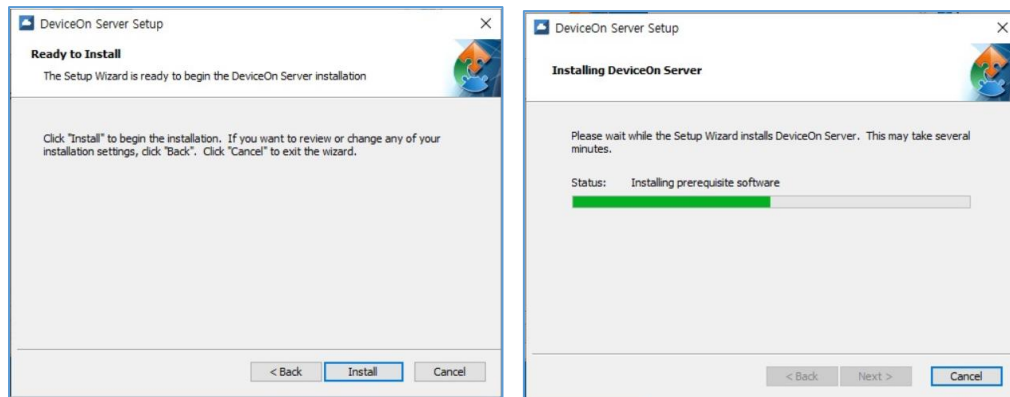
The screenshot shows the 'DeviceOn Server Setup' window with the 'Login Information' tab selected. The window title is 'DeviceOn Server Setup'. The subtitle is 'Login Information'. Below the subtitle, it says 'Please set administrator user information'. There is a small icon of a puzzle piece in the top right corner. The main content area contains the following text: 'If you want to review or change any of your installation settings, click "Back". Click "Cancel" to exit the wizard.' Below this, there are three input fields: 'Login account' with the value 'root@advantech.com.tw', 'Password' with masked characters, and 'Confirm password' with masked characters. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

- L. Dashboard(Grafana)의 Port 번호 (Default : 3000)

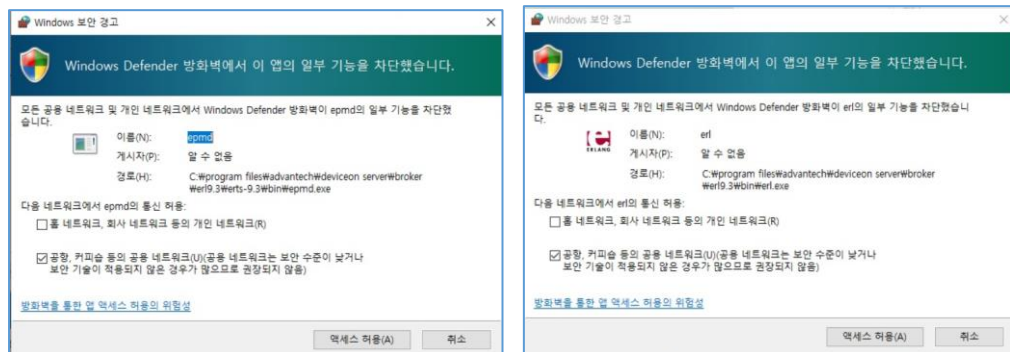


The screenshot shows the 'DeviceOn Server Setup' window with the 'Grafana Information' tab selected. The window title is 'DeviceOn Server Setup'. The subtitle is 'Grafana Information'. Below the subtitle, it says 'Please configure the Grafana server attributes'. There is a small icon of a puzzle piece in the top right corner. The main content area contains the following text: 'If you want to review or change any of your installation settings, click "Back". Click "Cancel" to exit the wizard.' Below this, there are two input fields: 'Login account / password' with the value 'admin/admin', and 'Grafana Port Number' with the value '3000'. At the bottom, there is a 'Note:' section with the text: '1. Default account/password is admin/admin, it can be changed after first login of grafana.' Below the note, there are three buttons: '< Back', 'Next >', and 'Cancel'.

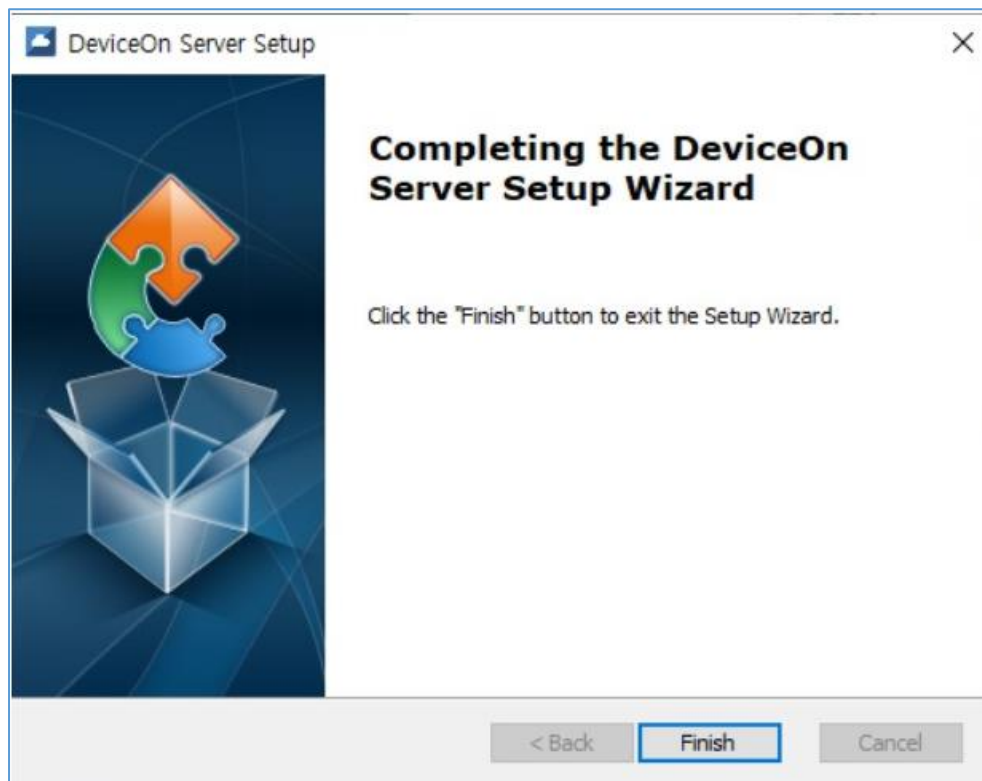
M. 설치 준비 완료 화면에서 "Install"



N. Window Defender 의 방화벽 차단 해제 (액세스 허용)



O. Finish



II DeviceOn Edge Software Installation

1. 시스템 요구 사항

General Operation Systems and Recommendations:

- ①. Windows 10 Enterprise 2016 LTSC 64-bit
- ②. Windows 10 Enterprise 2016 LTSC 64-bit
- ③. Windows 10 Enterprise (1809) 64-bit
- ④. Windows 10 Professional (1809) 64-bit
- ⑤. Windows 10 32-bit/64-bit
- ⑥. Windows 8/8.1 64-bit
- ⑦. Windows 7 SP1 32-bit/64-bit
- ⑧. Ubuntu 16.04 x64
- ⑨. CentOS 7

2. SUSI Software 설치

- A. 어드밴텍은 사용자가 디지털 I / O, I2C, CPU 스테핑 속도, 위치 독 타이머 및 스마트 팬을 직접 모니터링하고 제어 할 수있는 애플리케이션 인터페이스 제품군인 [SUSI \(Secure and Unified Smart Interface\)](#)를 개발했습니다. SUSI API 는 시장 출시 시간을 단축하여보다 안정적인 제품을 생산하는 데 도움이 됩니다. 즉, Advantech 제품의 Hardware 접근 및 제어하는 통합 인터페이스 플랫폼입니다.
- B. Advantech 웹페이지에서 제품별 SUSI 프로그램을 다운로드 할 수 있습니다.
https://support.advantech.com/support/SearchResult.aspx?keyword=SUSI&search_tabs=BIOS,Certificate,Datasheet,Documentation,Driver,FAQ,Firmware,Installation,Manual,Online%20Training,Software%20Utility,Software%20API,Software%20API%20Manual,Utility,3D%20Model,Quick%20Start%20Guide,Reference,SDK&select_tab=Utility

3. Download Agent 프로그램

A. Server 의 Public IP 로 접속 후 정보 입력 : ex)172.21.83.191:8080

DeviceOn

172.21.83.191:8080/#/deviceon/LoginNew

Welcome to use DeviceOn

User Information 1 End-User License Agreements 2

COMPANY NAME
Advantech

CONTACT NAME
sangjo.sim

CONTACT PERSON EMAIL
sangjo.sim@advantech.com.tw

COUNTRY
Korea

WHICH VERTICAL FOR YOUR DEVICES?
Industrial

Next

B. 라이선스 동의 후 Confirm

DeviceOn

172.21.83.191:8080/#/deviceon/LoginNew

Welcome to use DeviceOn

User Information 1 End-User License Agreements 2

ADVANTECH Co., Ltd. - END-USER LICENSE AGREEMENT

Please carefully read the following terms and conditions before using this product. It contains software, this use of which is licensed by ADVANTECH CO., LTD., to its customers for their use only as set forth below. If you do not agree to the terms and conditions of this agreement, do not use the software. No part of this software may be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of ADVANTECH CO., LTD.

GRANT OF LICENSE:

ADVANTECH CO., LTD. (the "Licensor") grants to you this limited, non-exclusive, non-transferable, non-assignable license solely to use in a single copy of the Licensed Works on a single product for use by a single concurrent user only and solely provided that you adhere to all of the terms and conditions of this Agreement.

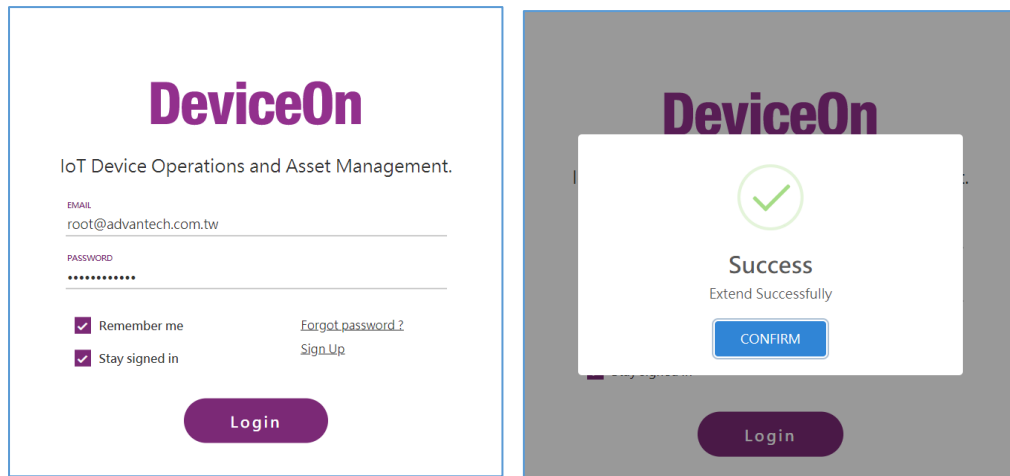
This license agreement applies to the free version of this software. You may use the Software without charge, and distribute exact copies of the Software to anyone.

☒ I accept this End User License Agreement

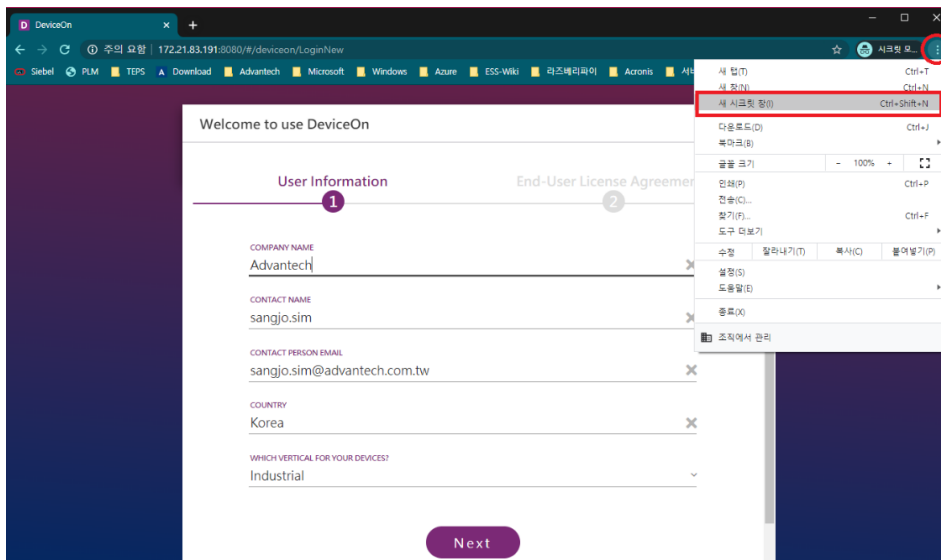
☒ I accept that DeviceOn will send your webpage URL, system information and some device messages to Advantech as an aid to improve the security of device connectivity.

Back Confirm

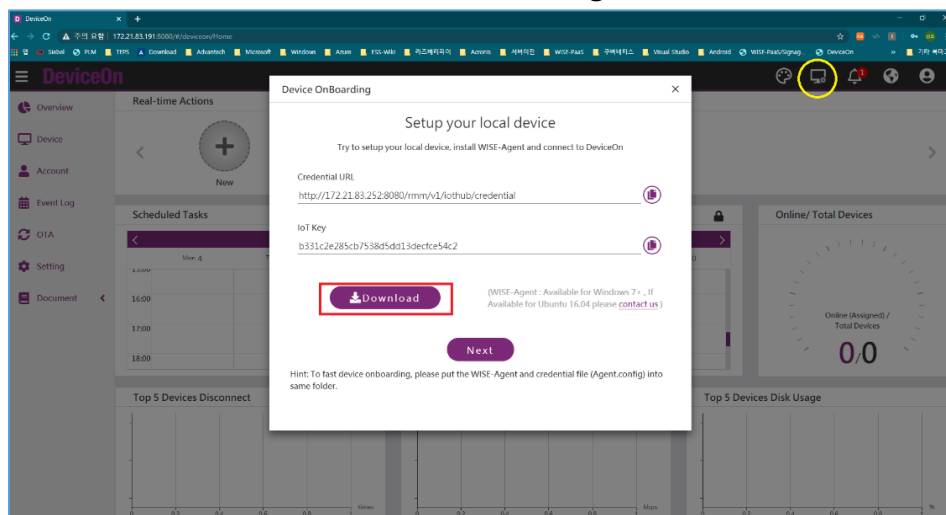
C. root@advantech.com.tw 로 로그인



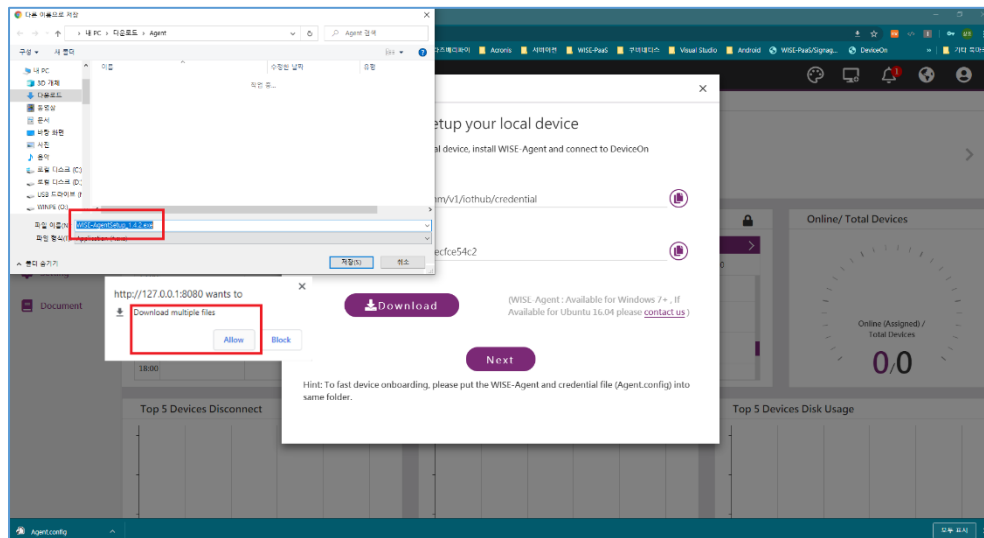
D. 로그인이 되지 않을 경우 시크릿 창에서 실행합니다.



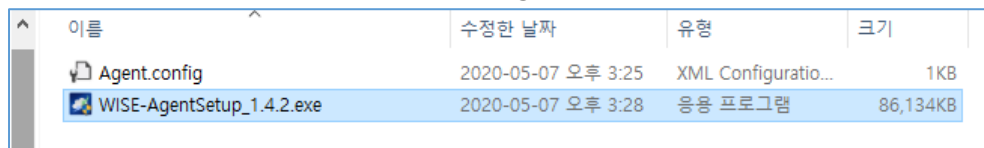
E. 우측 상단의 모니터 모양을 누르고 WISE-Agent 를 다운로드 합니다.



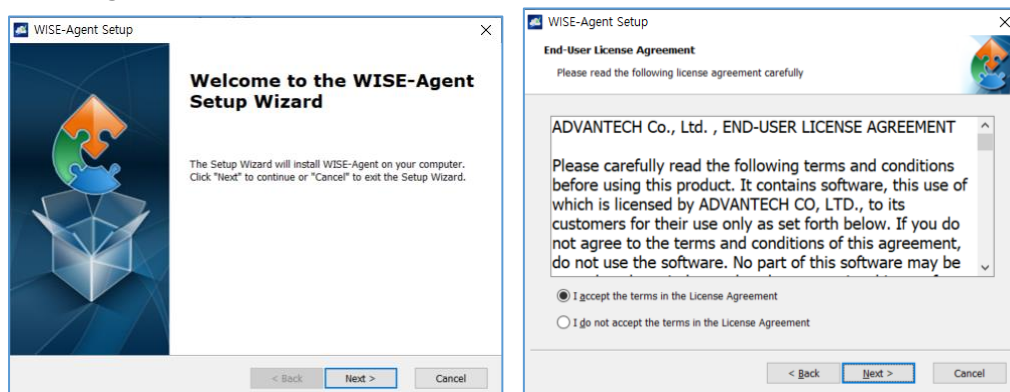
- F. Agent.config 파일과 WISE-AgentSetup.exe 2 개의 파일 저장합니다. Chrome 브라우저에서 multiple files 의 다운로드 허용을 선택합니다.



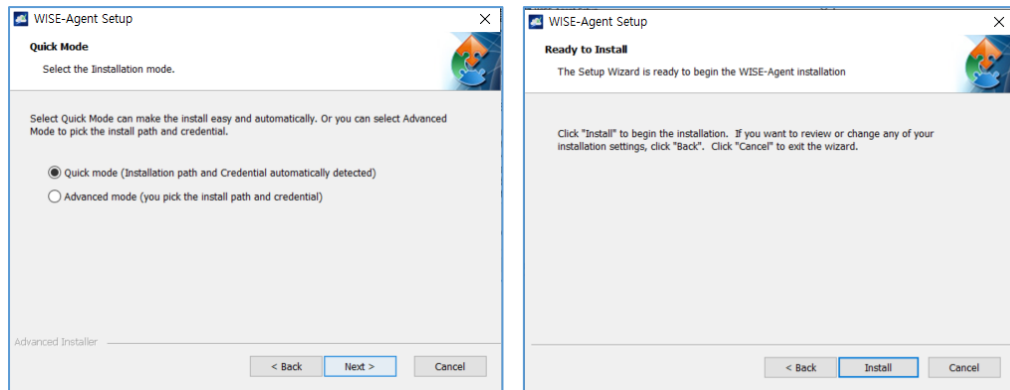
- G. 다운로드 된 폴더의 위치에서 WISE-AgentSetup_1.4.2.exe 를 실행합니다.



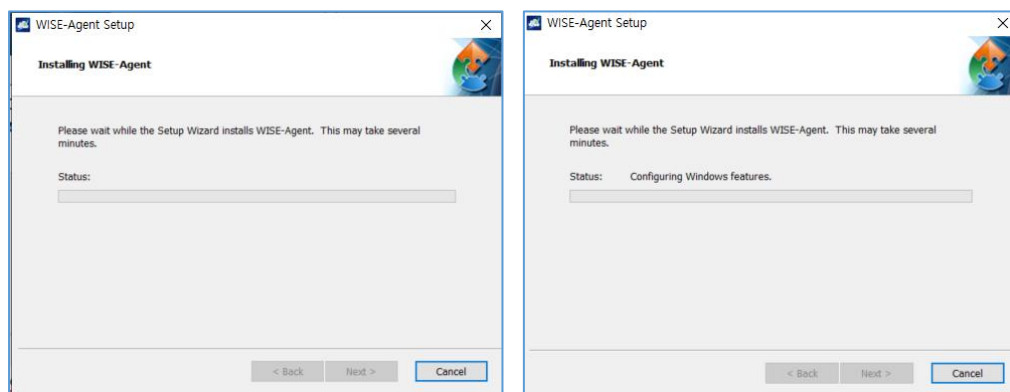
- H. WISE-Agent Setup Wizard 에서 Next 를 선택하고 라이선스 동의를 진행합니다.



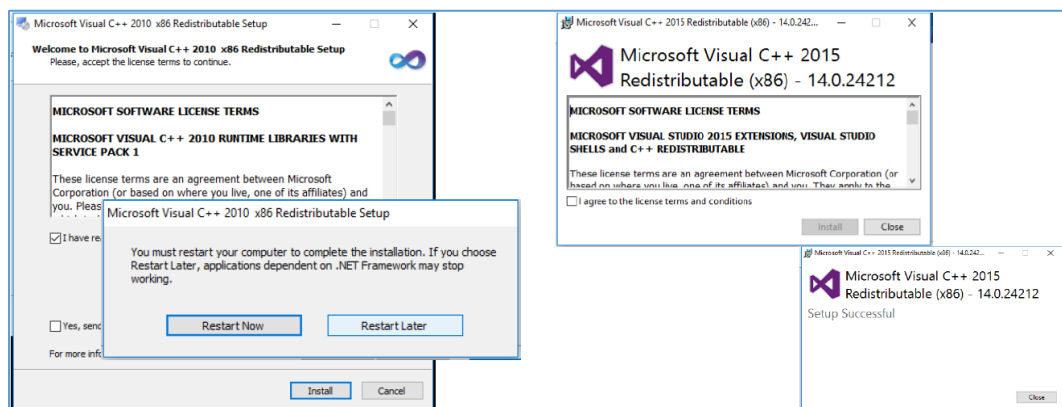
I. Quick Mode 를 선택 후 Next : (agent.config 파일의 정보로 설치 진행)



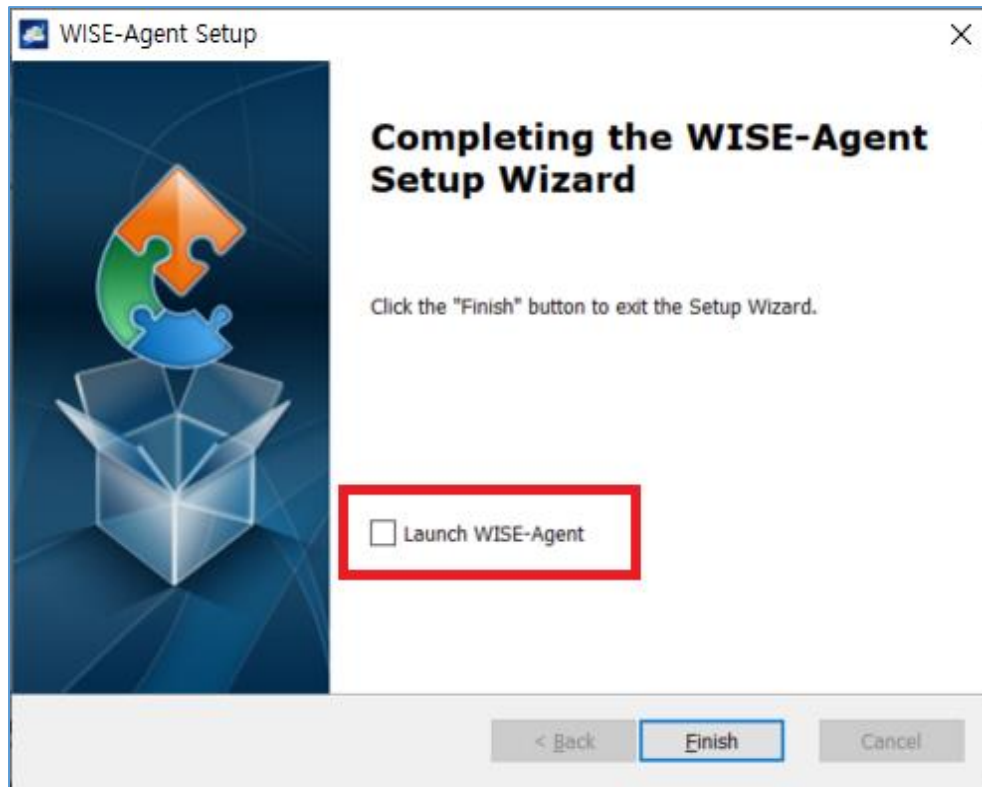
J. 아래와 같이 설치가 진행됩니다.



K. 설치 도중 재배포 가능 패키지를 요구할 경우 Install 을 눌러 설치합니다.



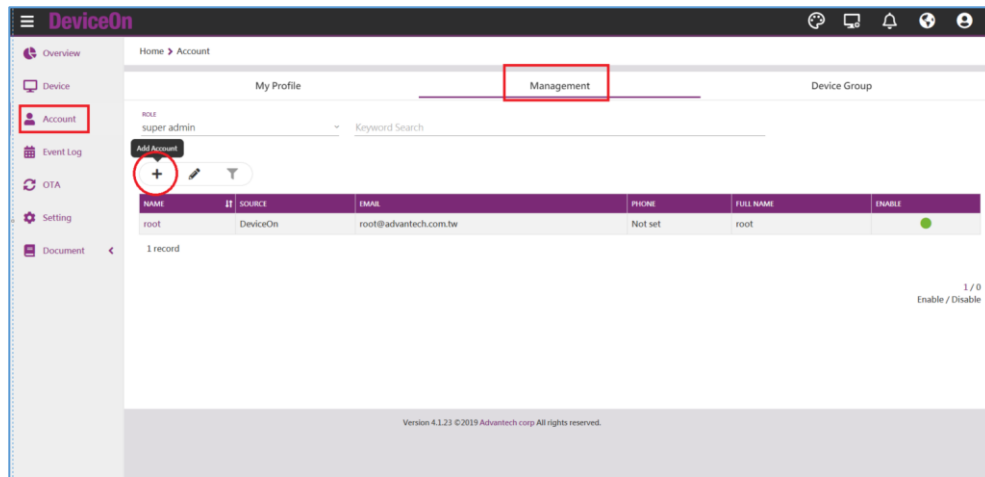
- L. Launch WISE-Agent 를 체크 해제 하고 Finish 를 클릭합니다. (추가 설정을 위함)



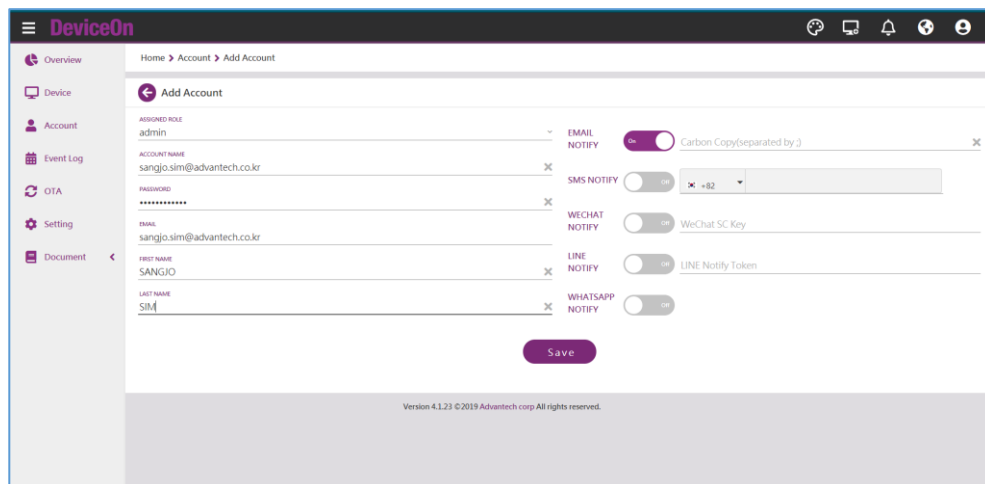
III DeviceOn Configuration

1. Account 추가

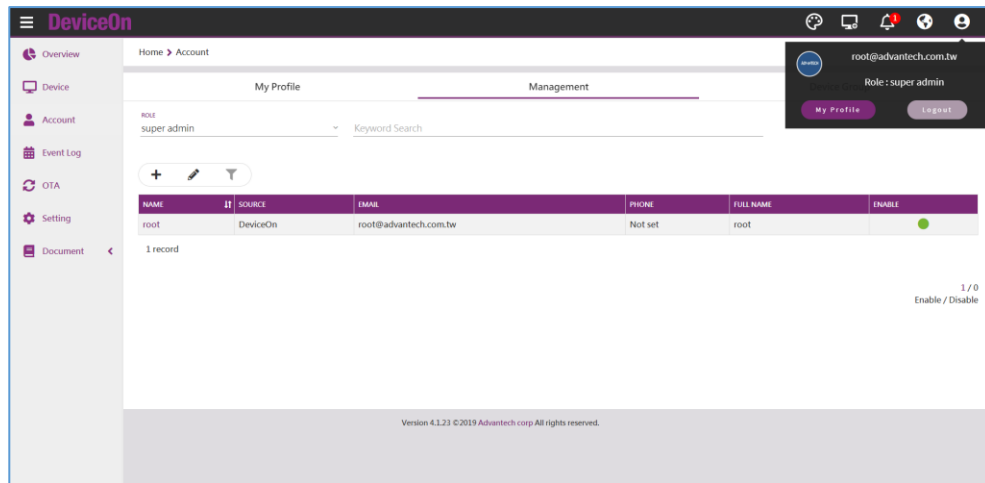
A. Account의 Management 항목에서 추가 "+"를 선택



B. 정보를 입력한 후 "SAVE"



- C. 우측 상단의 User 매뉴를 선택하여 "LogOut" 합니다.



- D. 새로운 사용자로 Login 을 합니다.

DeviceOn

IoT Device Operations and Asset Management.

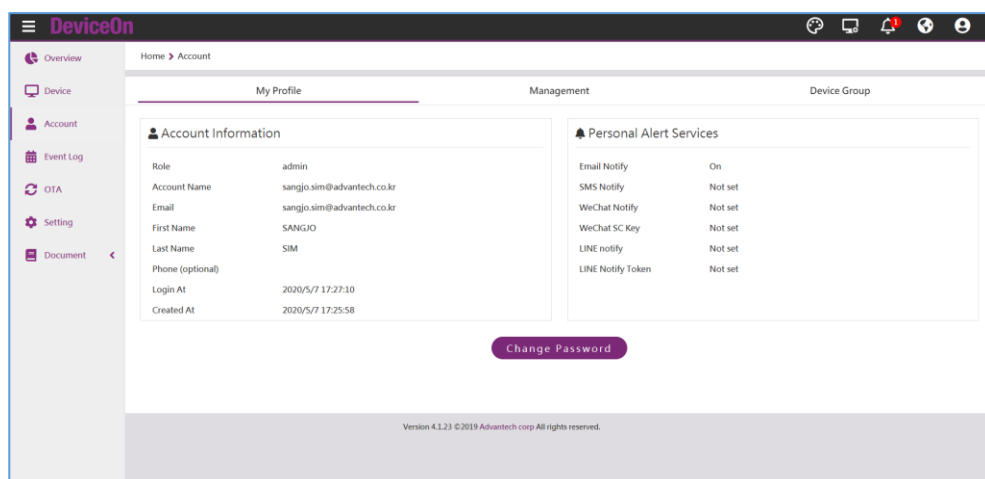
EMAIL
sangjo.sim@advantech.co.kr

PASSWORD
.....

☒ Remember me [Forgot password?](#)
☐ Stay signed in [Sign Up](#)

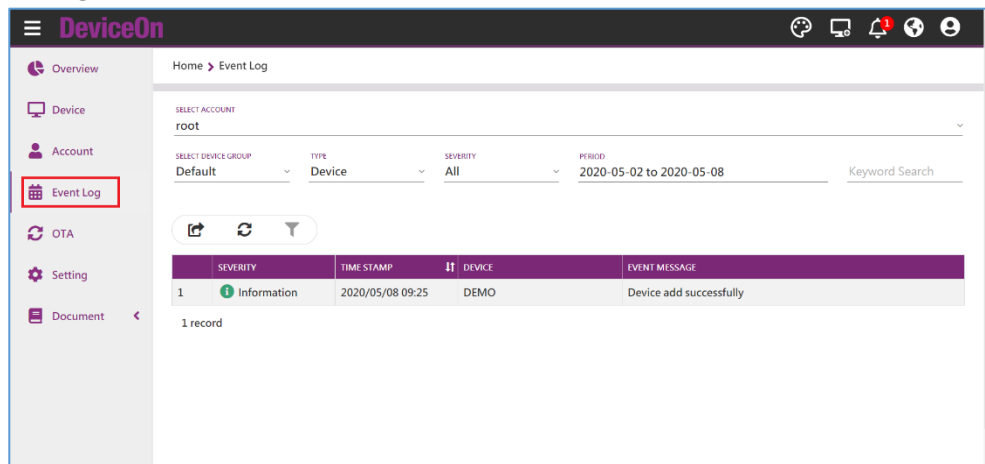
Login

- E. Account 의 My Profile 을 확인해 보면 신규 등록한 사용자를 확인할 수 있습니다.



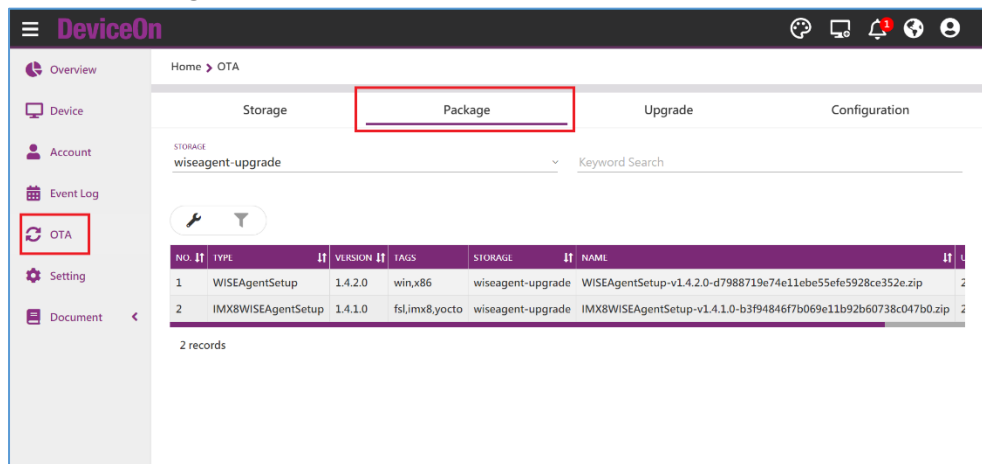
2. Event Log

A. Event Log 에서 연결된 장치의 이벤트를 확인할 수 있습니다.

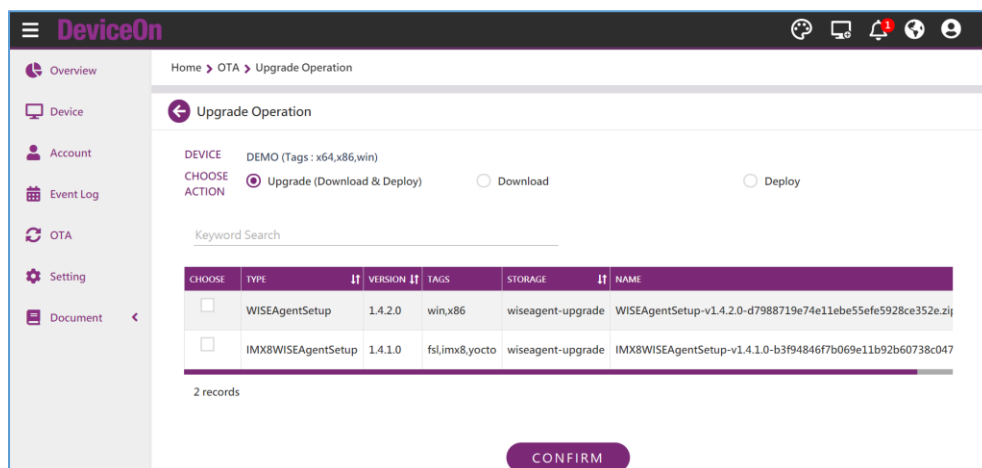
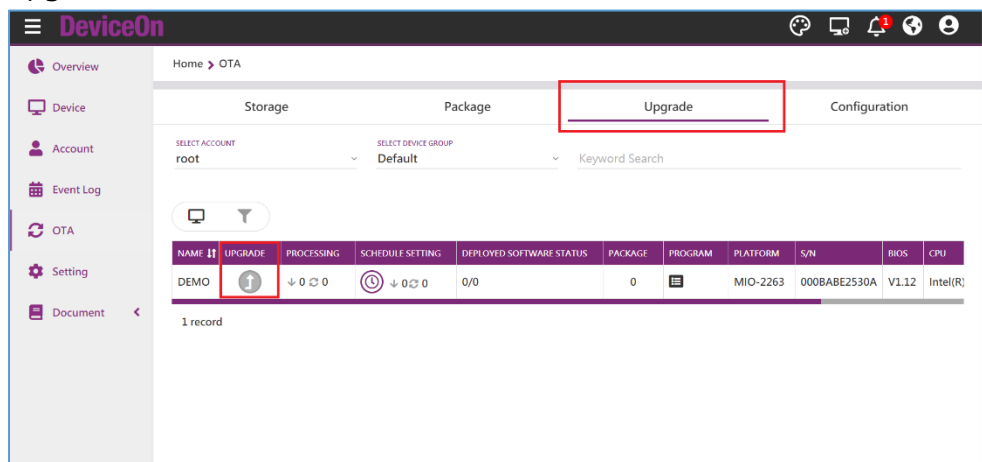


3. OTA 기능

- A. OTA 의 Package 를 등록하여 연결된 장치의 패키지를 관리합니다.



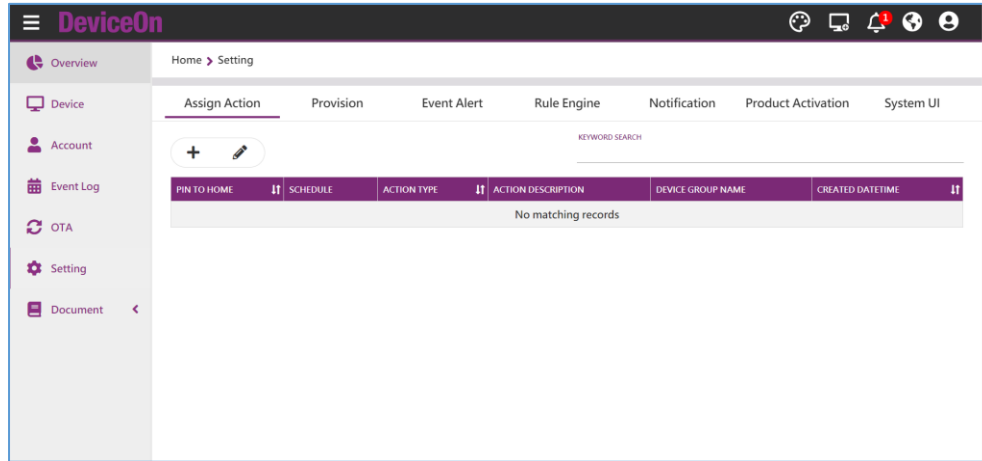
- B. Upgrade 를 선택하여 등록된 패키지를 원격으로 배포할 수 있습니다.



4. Setting

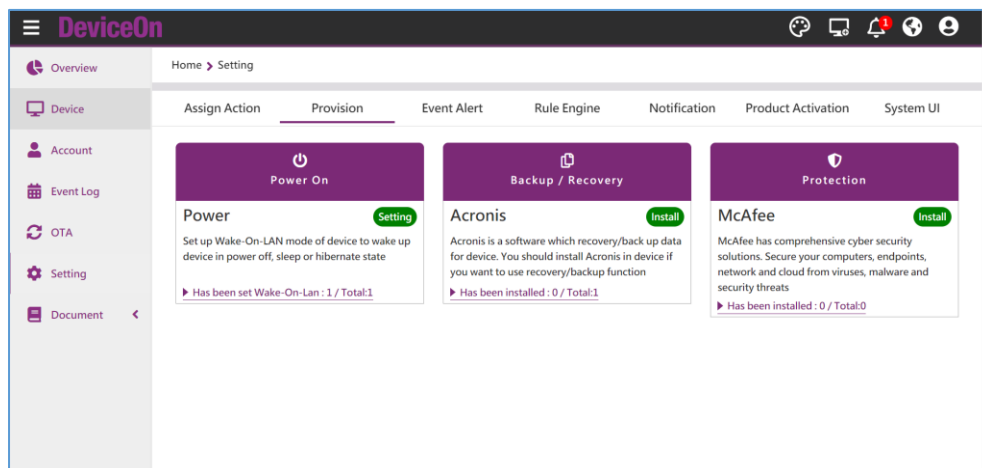
A. Assign Action

①. Overview Action 을 등록할 수 있습니다.



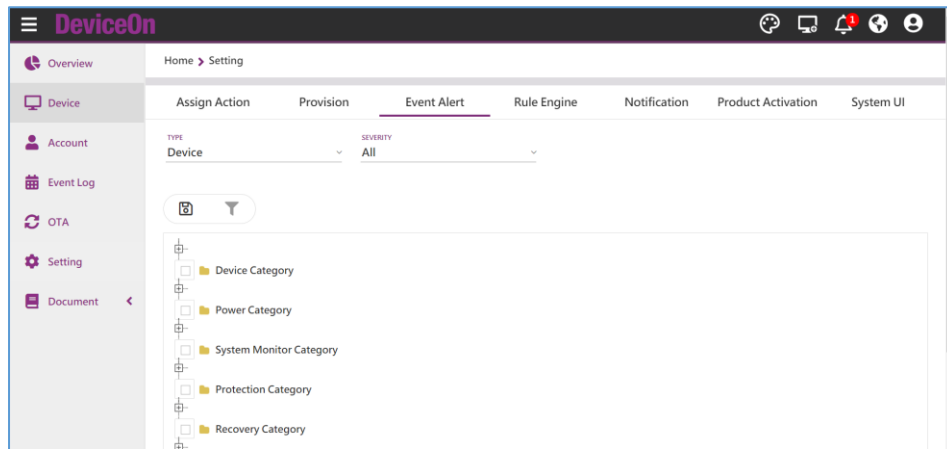
B. Provision

①. 장치의 Wake On Lan 또는 백업/복구, 보안 프로그램을 설치



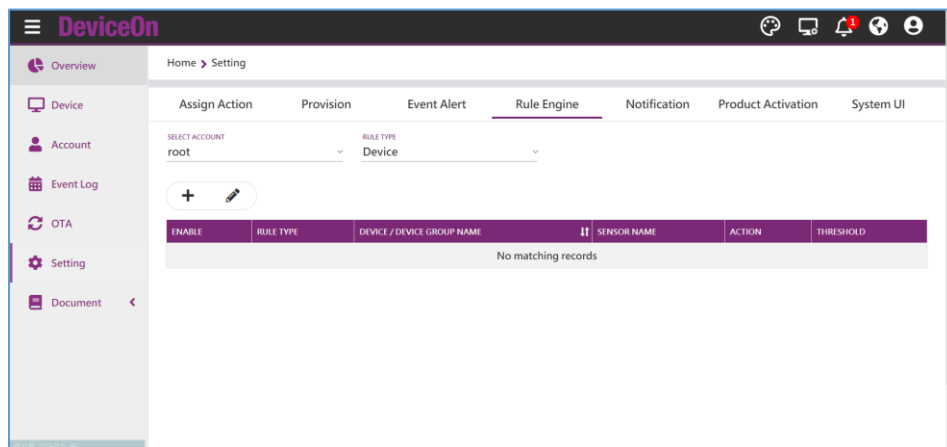
C. Event Alert

①. 이벤트 경고에 대한 정의



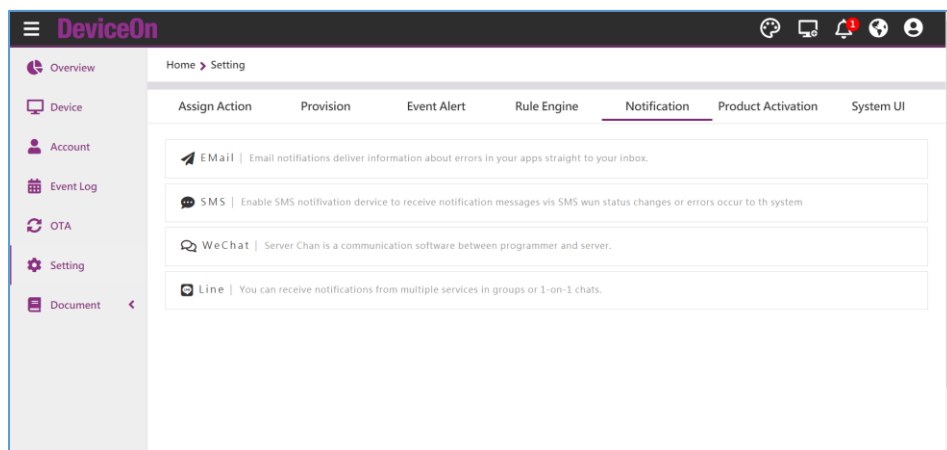
D. Rule Engine

①. 각 장치 센서의 Threshold 를 설정할 수 있습니다.



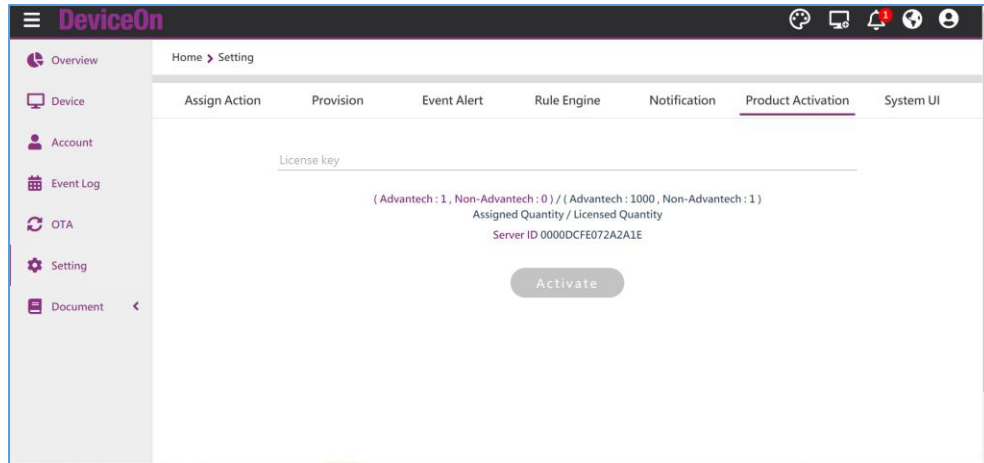
E. Notification

①. E-mail, SMS, Line 등을 통한 알림 기능을 제공합니다.



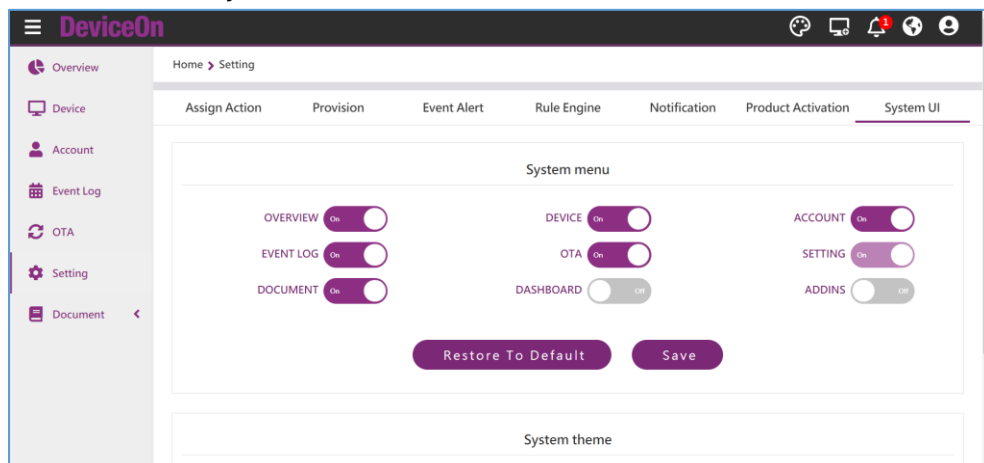
F. Product Activation

- ①. 라이선스와 연결 가능한 제품 정보가 표시됩니다. Advantech 제품의 경우 1000 개가 무료 제공되며, 타사 제품의 경우 1 개만 등록이 가능합니다.



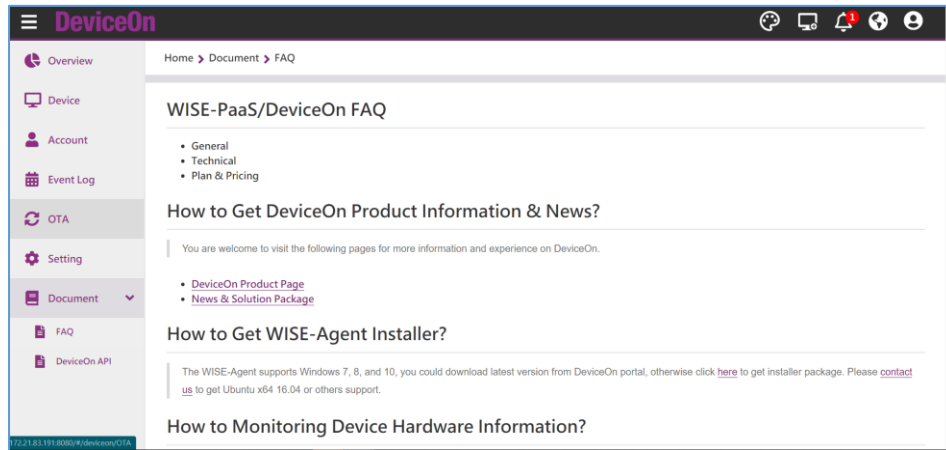
G. System UI

- ①. 사용자에게 맞게 System UI 를 구성할 수 있습니다.



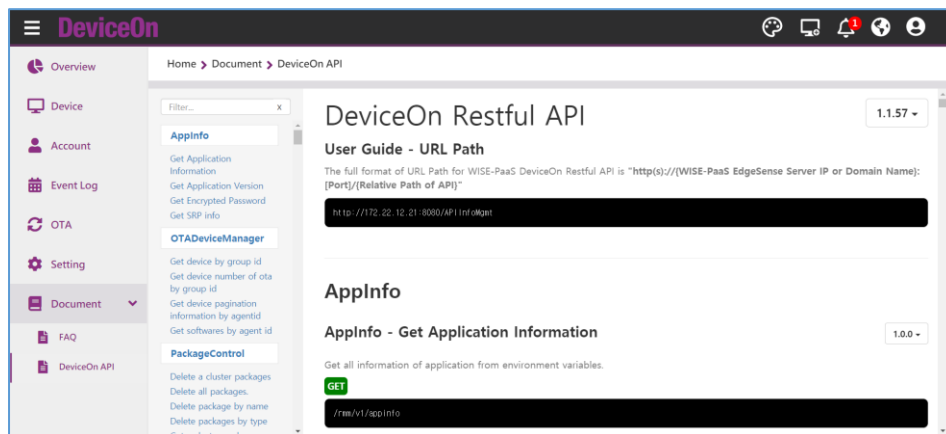
5. Document

- A. FAQ
- B. FAQ 에 대한 안내

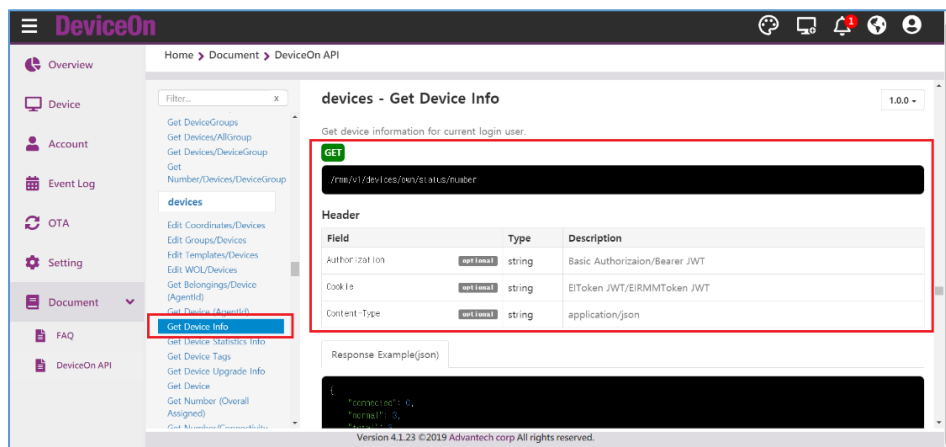


- C. DeviceOn API

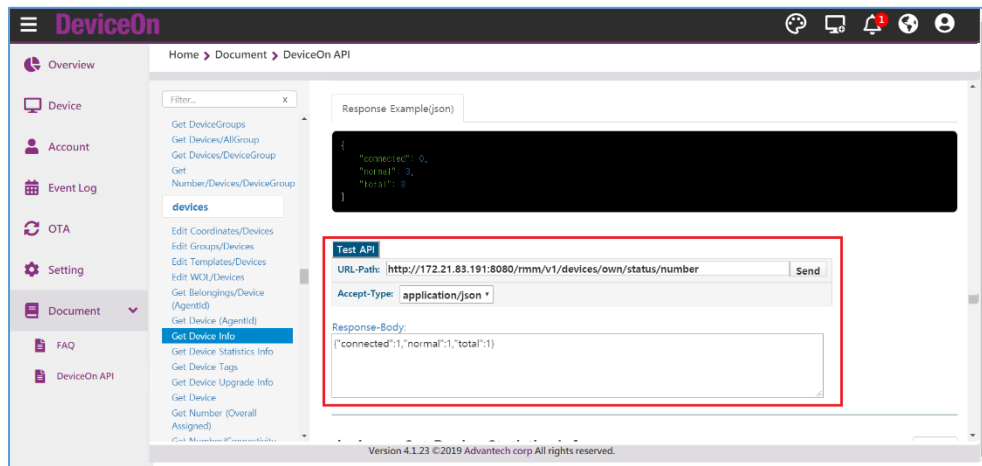
①. DeviceOn 은 Restful API 를 지원합니다



②. "Devices"항목의 Get Device Info 를 통해 API 를 호출합니다.



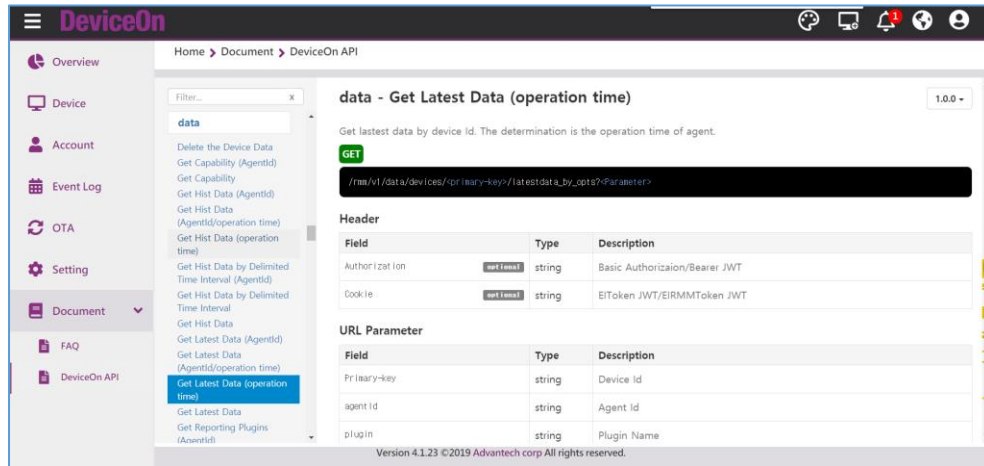
- ③. 아래에 Test API 를 클릭하면 API 입력창이 확장되며 형식을 확인 후 Send 를 클릭하면 아래와 같은 결과 값의 응답을 확인할 수 있습니다.



IV Restful API 를 통한 실제 습도 센서 데이터 확인 (실습)

1. 센서 데이터 가져오기

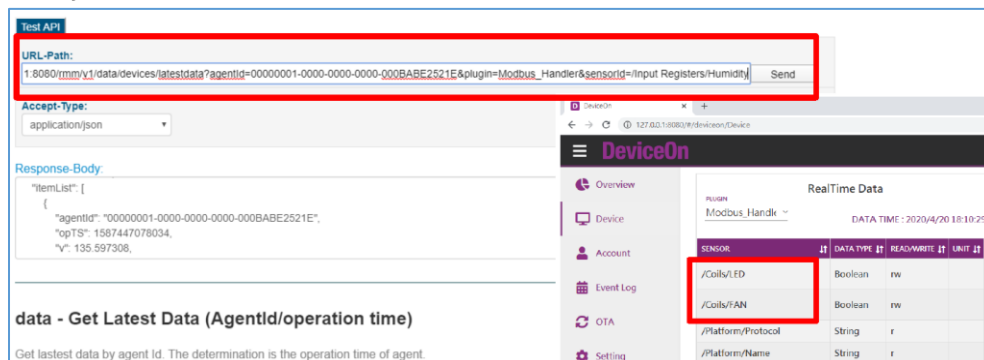
A. "Data"의 Get Latest Data (operation time)으로 이동합니다.



B. API 문서의 형식과 같이 입력합니다.

Ex) 서버 IP:8080/API 명령/AgentID/Plugin 이름/Sensor

http://127.0.0.1:8080/rmm/v1/data/devices/latestdata?agentId=00000001-0000-0000-0000-000BABA2521E&plugin=Modbus_Handler&sensorId=/Input Register/Humidity

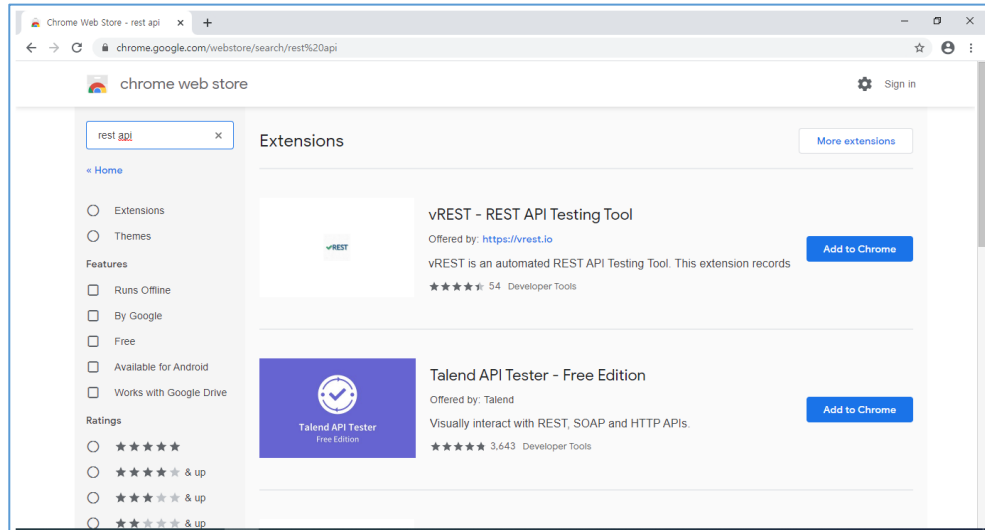


C. 위와 같이 Response-Body 에서 센서 데이터를 확인합니다.

2. 3rd Part Restful API Tools 을 이용

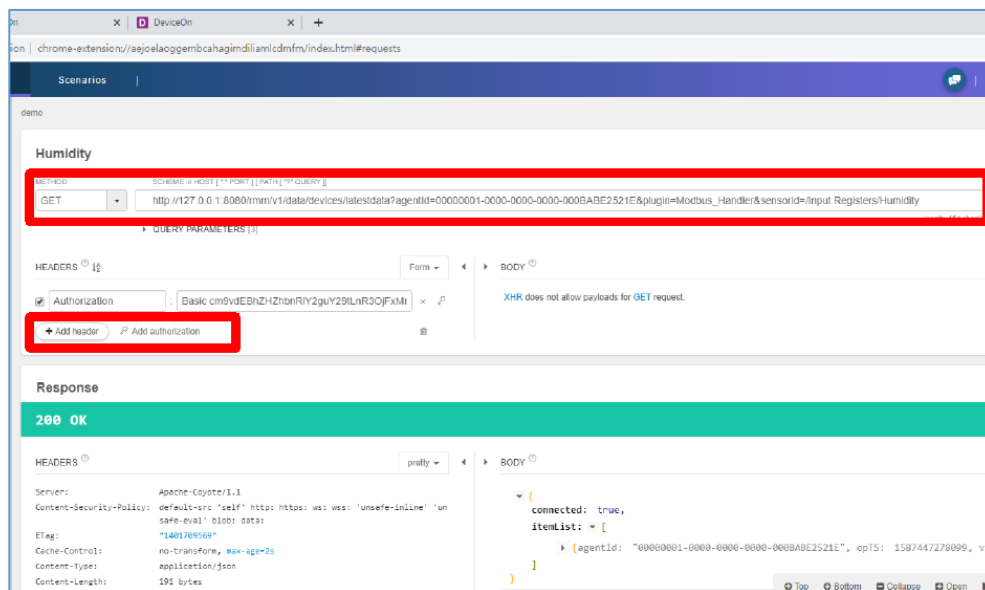
A. 해당 API 는 [Talend API Tester](#) 를 통해서도 확인이 가능합니다.

B. Chrome 에서 플러그 인을 설치합니다.



C. 먼저 Headers 항목에서 Add authorization 을 클릭 후 나오는 창에서 DeviceOn 서버 접속 아이디와 패스워드를 입력 합니다

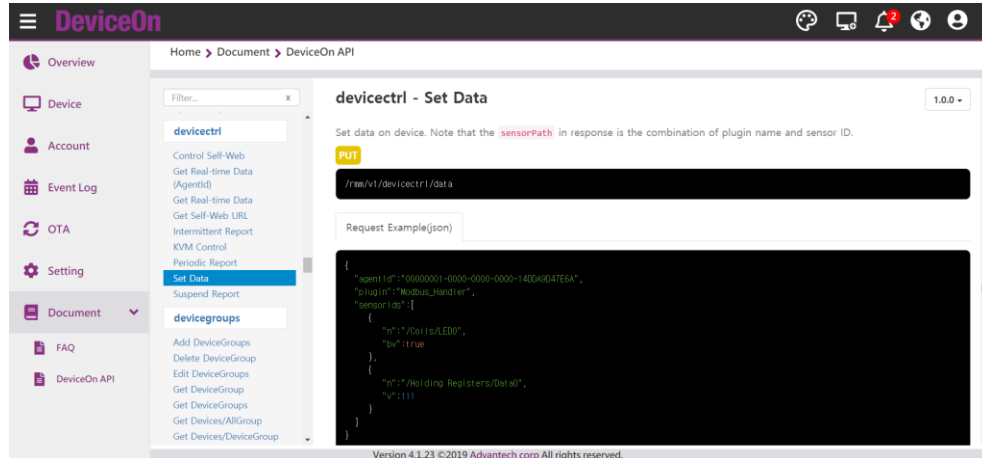
D. 이전 실습의 센서 데이터 가져오기와 동일한 API 를 입력하여 GET 을 합니다.



3. Digital Output 신호 보내기

Restful API 를 통한 WISE-4012 에 연결된 LED 동작 테스트 (연결된 경우)

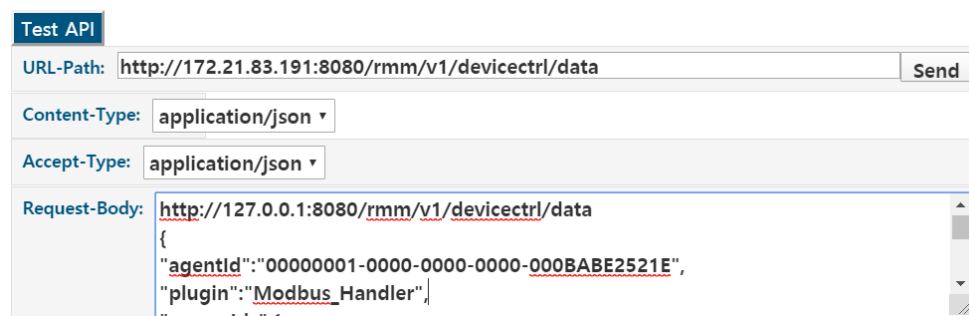
- A. "Devicectrl" 의 Set Data 로 이동합니다.



- B. 아래와 같은 형식으로 입력합니다.

ex) 아래 내용 복사후 IP 주소와 SensorID 를 변경

```
http://172.21.83.191:8080/rmm/v1/devicectrl/data
{
  "agentId":"00000001-0000-0000-0000-000BABA2521E",
  "plugin":"Modbus_Handler",
  "sensorIds":[
    {
      "n":"/Coils/FAN",
      "bv":true
    }
  ]
}
```



- C. LED 가 점등되었는지 확인