

Wisenet TMS Console

관리자 설명서

VER 1.0



Wisenet TMS Console 관리자 설명서

저작권 안내

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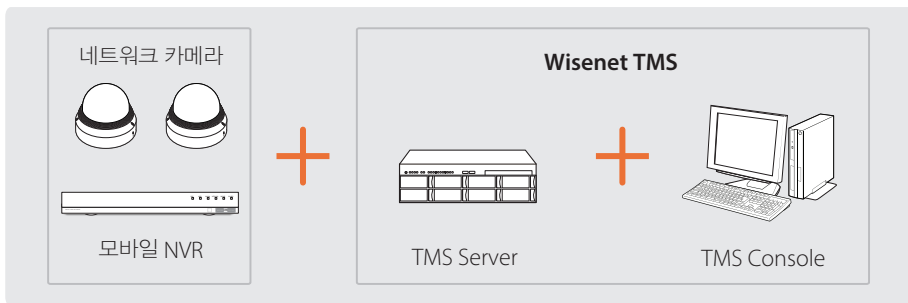
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Wisenet TMS 알아보기

Wisenet TMS(Transport Monitoring System)는 기차, 버스 등 교통수단의 운행 중 동선 정보(GPS 정보)와 운행 중 발생하는 이벤트 관리 및 차량 내 녹화된 영상을 백업하는 솔루션입니다. 또한 **TMS Server**에 저장된 데이터를 원격지에서 검색 및 재생하여 편리하고 효율적인 감시 환경을 구축할 수 있습니다.

시스템 구성 알아보기

Wisenet TMS(Transport Monitoring System)은 다음과 같이 구성되어 있습니다.



TMS Console

- **TMS Server**에 아카이브된 카메라 녹화 영상 및 차량의 운행 경로를 지도 위에서 검색하거나 재생할 수 있습니다.
- 차량 운행 중 발생한 주요 이벤트에 대한 통계를 확인하고 특정 이벤트를 검색하여 검색 결과를 파일로 내보내기할 수 있습니다.
- 모바일 NVR에 장착된 디스크를 **TMS Server**에 직접 연결하여 원하는 데이터를 검색하고 내보내기할 수 있습니다.

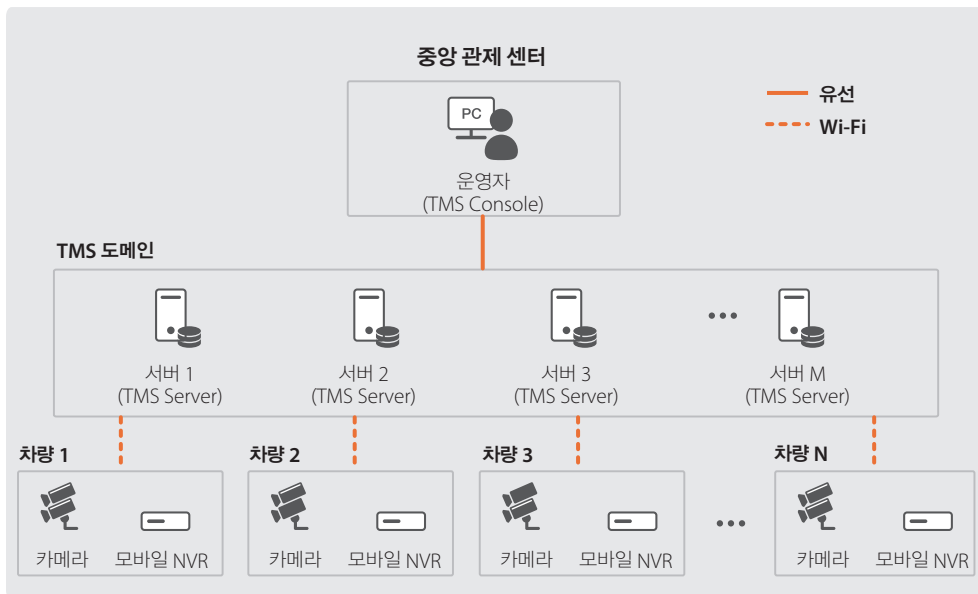
TMS Server

- **TMS Server** 시스템에 발생한 이벤트 정보를 저장하고 관리할 수 있습니다. 차량에 탑재된 모바일 NVR이 Wi-Fi에 연결되면 모바일 NVR에 저장된 GPS 정보와 녹화된 카메라 영상 및 이벤트 정보를 **TMS Server**로 아카이브합니다.
- 여러 개의 **TMS Server**를 클러스터링하여 하나의 도메인으로 구성할 수 있습니다. 이 경우 하나의 **TMS Server**에 접속하더라도 클러스터링된 다른 **TMS Server**에 등록된 장치 정보를 통합 관리할 수 있습니다.
- **TMS Server**의 시스템 설정을 백업하거나 복원할 수 있습니다.

TMS 도메인

TMS 도메인은 **Wisenet TMS**를 구성하는 통합 영상 관리 시스템의 단위를 의미합니다. TMS 도메인은 한 개의 **TMS Server**로 구성하거나 여러 개의 **TMS Server**를 서버 클러스터링으로 구축하여 하나의 도메인으로 구성할 수도 있습니다.

TMS 도메인은 아래와 같은 형태로 구성됩니다.

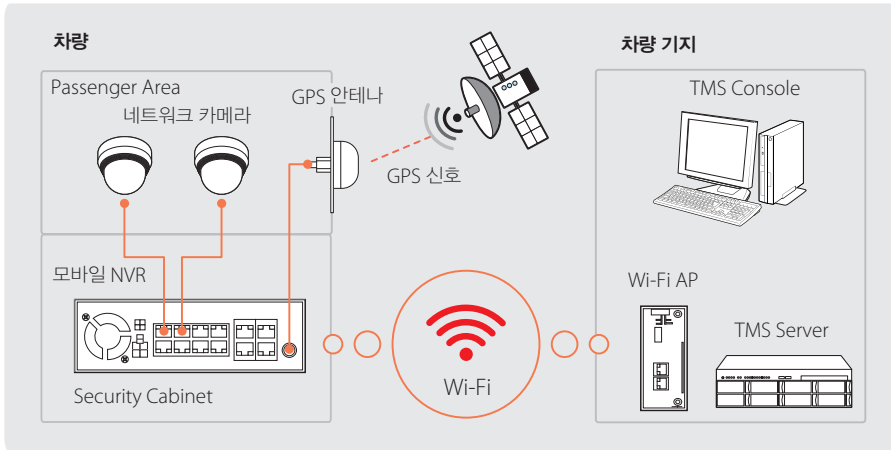


- 여러 개의 **TMS Server**와 **TMS Console**이 서버 클러스터링을 통해 하나의 도메인으로 구성될 수 있습니다.
- 도메인에서는 다수의 서버 간에 사용자 정보와 장치 정보를 공유하여 시스템을 안전하게 운용할 수 있습니다.

영상 저장 방식 알아보기

아카이브

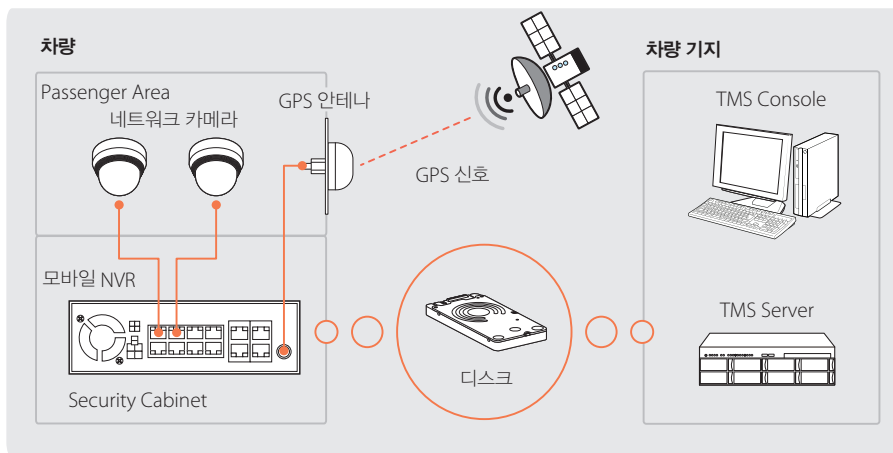
모바일 NVR에 저장된 GPS 정보와 영상의 자동 백업은 Wi-Fi를 이용하여 모바일 NVR로부터 원격으로 데이터를 가져와 백업합니다.



- **TMS Server** 한 대에 최대 128개의 모바일 NVR을 등록할 수 있습니다. 하나의 도메인에 최대 10,000개까지 카메라를 운용할 수 있습니다.

외부 저장장치 내보내기

모바일 NVR에 저장된 GPS 정보와 영상의 수동 백업은 모바일 NVR의 디스크로부터 직접 데이터를 가져와 백업합니다.



알아두기

- **TMS Console**이 설치된 PC에서 외부 저장장치 내보내기 기능을 사용하려면 **Paragon** 소프트웨어 설치 및 소프트웨어 라이선스 인증이 필요합니다.

Wisenet TMS 시작하기

TMS Console 프로그램을 실행하는 방법과 메뉴 및 화면 구성을 확인할 수 있습니다.

시작하기 전에

서비스 매니저 시작하기

Wisenet TMS를 시작하기 전에 TMS Service Manager를 통해 SystemManager와 MediaServer의 실행 상태를 확인하고, 시작 또는 중지할 수 있습니다.



알아두기

TMS Console을 사용하기 전에 반드시 TMS Service Manager를 통해 각 서비스가 실행된 상태임을 확인하세요.

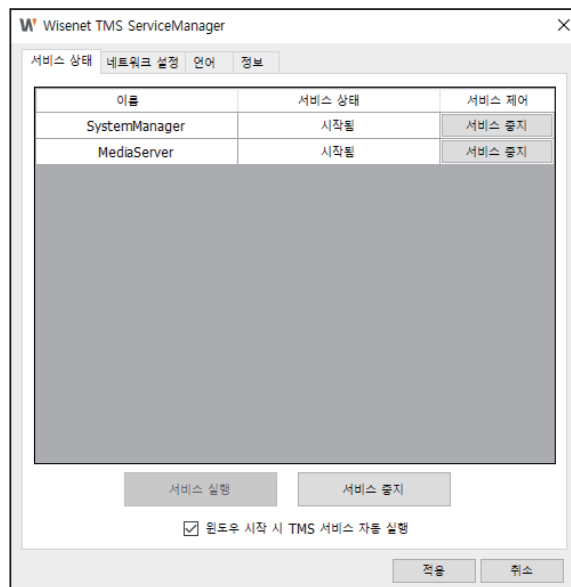
서비스 매니저 실행하기

1. TMS Service Manager 프로그램을 실행하세요.

- 바탕화면에서 TMS Service Manager 프로그램 아이콘  을 더블 클릭하세요.
- 또는  > Wisenet > TMS Server > TMS Service Manager를 차례로 선택하세요.

2. 각 서비스의 상태가 모두 시작되었는지 확인하세요.

서비스 상태가 중지된 경우 서비스 제어의 서비스 시작 버튼을 눌러 서비스를 실행하세요.



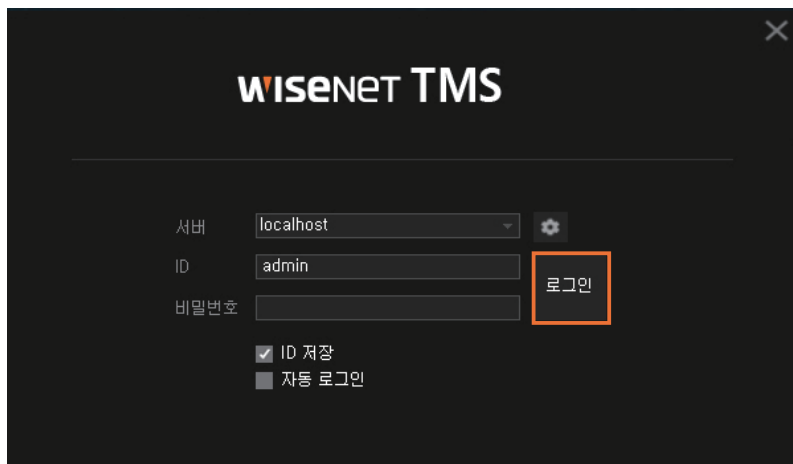
최초 로그인하기

TMS Server를 설치한 후 TMS Console에서 TMS Server로 처음 로그인할 때 관리자(admin) 초기 비밀번호를 설정해야 합니다.

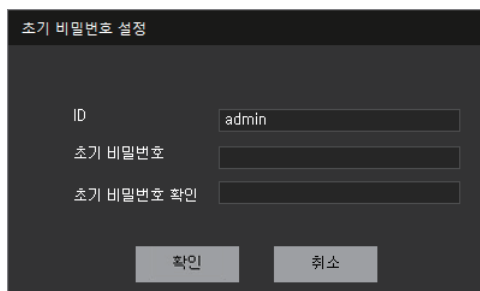
1. TMS Console 프로그램을 실행하세요.

- 바탕화면에서 TMS Console 프로그램 아이콘  을 더블 클릭하세요.
- 또는  > Wisenet > TMS Console을 차례로 선택하세요.

2. 로그인 화면에서 로그인 버튼을 클릭하세요.



3. 초기 비밀번호 설정 대화 상자가 나타나면 초기 비밀번호를 설정한 후 확인 버튼을 클릭하세요.



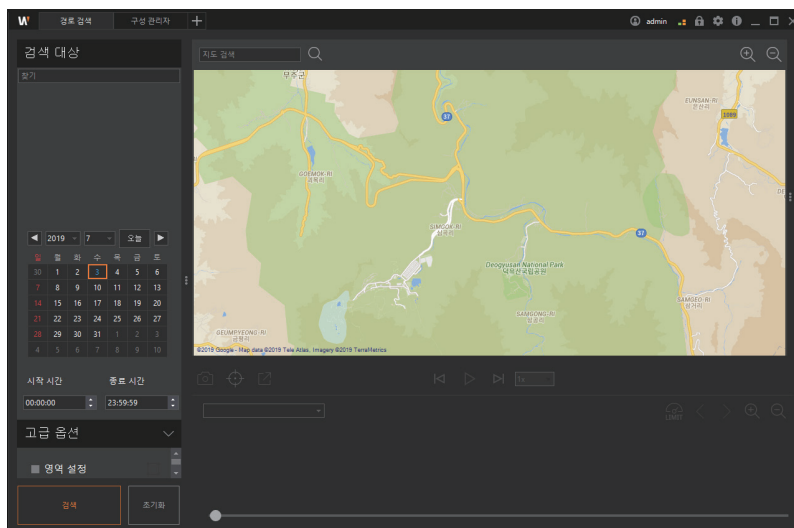
알아두기

- ID와 같은 비밀번호는 사용할 수 없습니다.
- 비밀번호 길이는 최소 6자 이상, 최대 32자 이하로 설정하세요.
- 비밀번호 길이가 10자 미만이면 영어 대소문자, 숫자, 특수 문자 중 3가지 이상을 조합하여 설정하세요.
- 비밀번호 길이가 10자 이상이면 영어 대소문자, 숫자, 특수 문자 중 2가지 이상을 조합하여 설정하세요.
- 연속된 문자를 4개 이상 사용할 수 없습니다(예: 1234, abcd 등).
- 같은 문자를 4번 이상 반복해서 사용할 수 없습니다(예: !!!!, 1111, aaaa 등).
- 특수 문자에는 제약 사항이 없습니다.
- 비밀번호를 잊어버리면 재설정할 수 없으므로 반드시 기억하세요.

4. 로그인 화면에서 초기 비밀번호를 입력한 후 **로그인** 버튼을 클릭하세요.



5. 처음 로그인했거나 등록된 장치가 없을 때는 **경로 검색**과 **구성 관리자** 탭이 나타납니다.



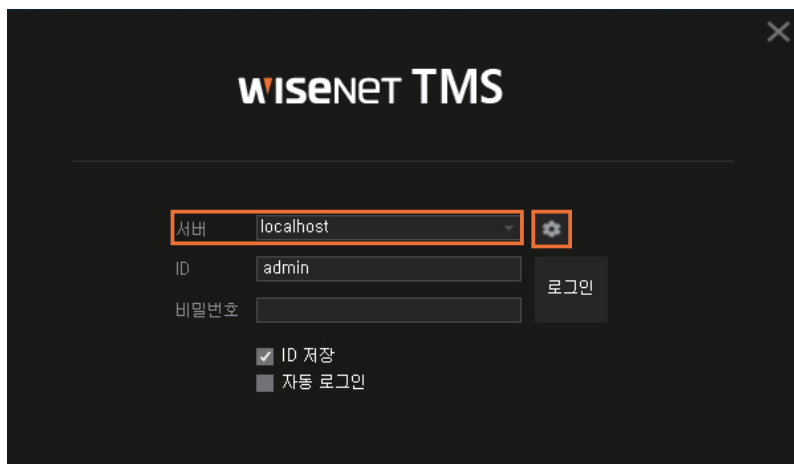
알아두기

- 프로그램을 종료한 후 다시 시작하면 프로그램을 종료하기 전에 마지막으로 열었던 메뉴가 나타납니다.
- 프로그램의 시작 옵션은 아래 경로에서 변경할 수 있습니다.
TMS Console > [설정 아이콘] > 일반 > 시작 옵션
- **TMS Console**의 화면은 관리자가 선택한 메뉴에 따라 구성이 다를 수 있습니다.

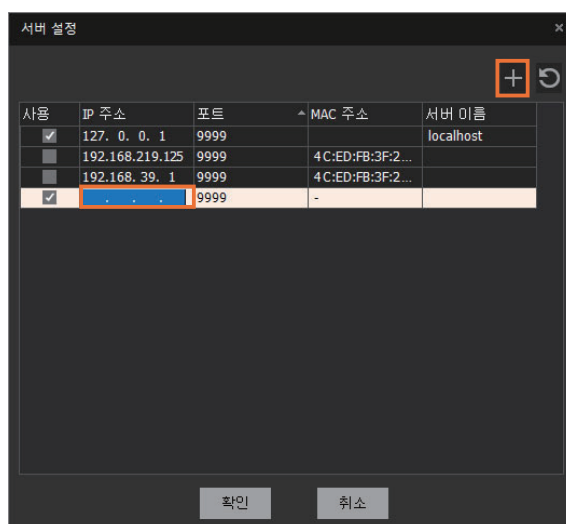
로그인 서버 변경하기

로그인할 서버를 변경하려면 로그인 화면의 서버 목록에서 원하는 서버를 선택할 수 있습니다.

1. TMS Console 프로그램을 실행하세요.
2. 로그인 화면에서 **서버**를 클릭한 후 원하는 서버를 선택하세요.



3. 서버 목록에 로그인할 서버가 보이지 않으면  버튼을 클릭한 후 자동으로 검색된 서버 목록에서 원하는 서버를 선택하세요.
수동으로 IP 주소를 설정하여 서버를 선택하려면  버튼을 클릭하세요. IP 주소를 입력한 후 **확인** 버튼을 클릭하세요.



4. 선택한 서버의 ID와 비밀번호를 입력한 후 로그인하세요.

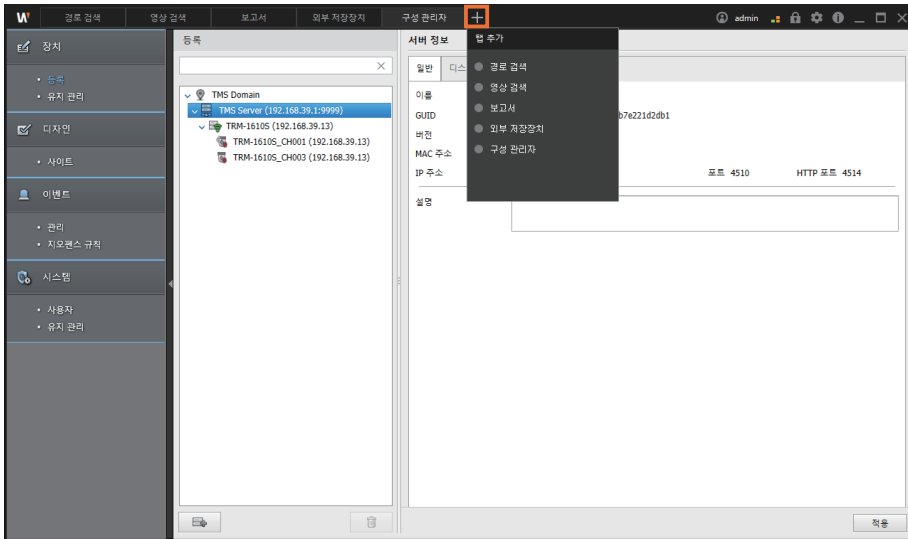
화면 구성 알아보기

TMS Console 프로그램의 메뉴와 화면 구성을 확인할 수 있습니다.

TMS Console 메뉴 열기

TMS Console 프로그램의 메뉴는 탭으로 구성되어 있습니다. 메뉴 탭을 자유롭게 이동하면서 원하는 메뉴 항목을 선택하거나 페이지를 분리하여 별도의 프로그램처럼 동작할 수 있습니다.

1. TMS Console 프로그램을 실행하세요.
2. 메뉴 페이지를 열려면 **+** 버튼을 클릭한 후 **탭 추가** 대화 상자에서 원하는 메뉴를 선택하세요.
 - 메뉴 페이지를 닫으려면 메뉴 탭 위에 마우스를 가져갔을 때 나타나는 **x** 를 클릭하세요.
 - 메뉴 페이지를 분리하려면 메뉴 탭을 마우스로 드래그 앤드 드롭하세요.



경로 검색	차량의 이동 경로를 지도상에서 검색하거나 특정 영역을 선택하여 이동 경로를 검색할 수 있습니다. 이벤트가 발생한 시점의 녹화 영상을 인스턴트 뷰어로 확인할 수 있습니다
영상 검색	카메라를 통해 녹화된 영상을 볼 수 있고 이벤트가 발생한 시점의 녹화 영상을 재생할 수 있습니다. 서버에 보관된 녹화 영상과 Wi-Fi에 연결된 모바일 NVR의 녹화 영상도 검색할 수 있습니다.
보고서	과속, 지오펜스, 비상벨, 충격 감지 이벤트와 장치 및 TMS Server 시스템에서 발생한 이벤트를 검색할 수 있습니다.
외부 저장장치	모바일 NVR에 장착된 디스크를 TMS Server에 직접 연결하여 원하는 데이터를 검색하거나 내보내기를 할 수 있습니다.
구성 관리자	TMS Server 시스템을 구성하고 관리할 수 있습니다.



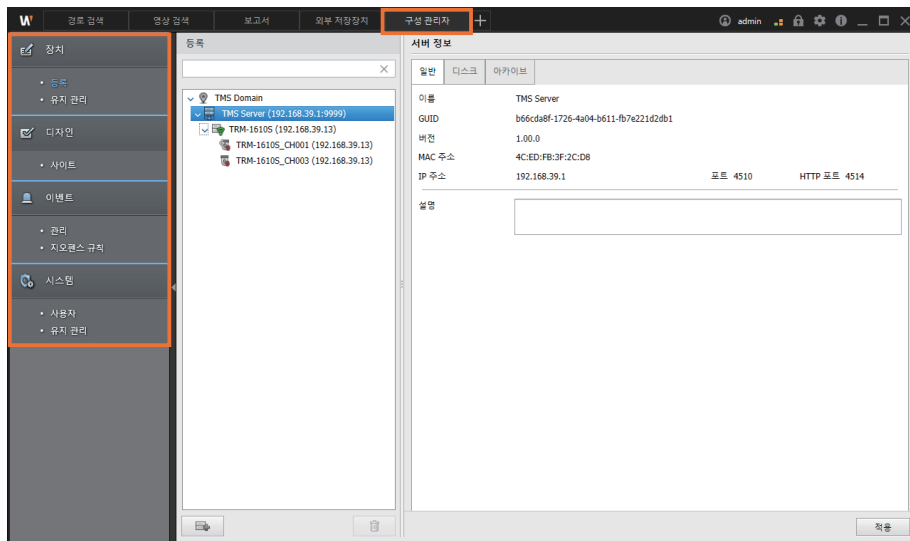
알아두기

- TMS Console 프로그램의 메뉴를 사용하는 자세한 방법은 별도의 사용자 설명서를 참고하세요.
- 사용자 설명서는 제품 홈페이지(<http://www.hanwha-security.com>)에서 다운로드할 수 있습니다.

구성 관리자 메뉴 알아보기

TMS Console 프로그램의 구성 관리자 메뉴를 선택하여 장치를 등록하거나 기능별 설정을 변경할 수 있습니다.

1. TMS Console 프로그램을 실행하세요.
2. 구성 관리자 탭을 클릭하여 구성 관리자 메뉴 페이지를 여세요.



- 장치 메뉴에서는 시스템 운용을 위한 영상 장치의 등록과 설정을 관리할 수 있습니다.

등록	TMS Server와 모바일 NVR을 등록하거나 설정할 수 있습니다.
유지 관리	TMS Server에 등록된 장치의 유지 관리를 수행할 수 있습니다.

- 디자인 메뉴에서는 TMS Server에 등록된 장치를 관리 기준에 따라 분류하여 운영할 수 있습니다.

사이트	장치별 그룹을 지정하여 유연한 도메인 구조를 생성할 수 있습니다.
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- 이벤트 메뉴에서는 장치의 이벤트와 관련된 설정을 할 수 있습니다.

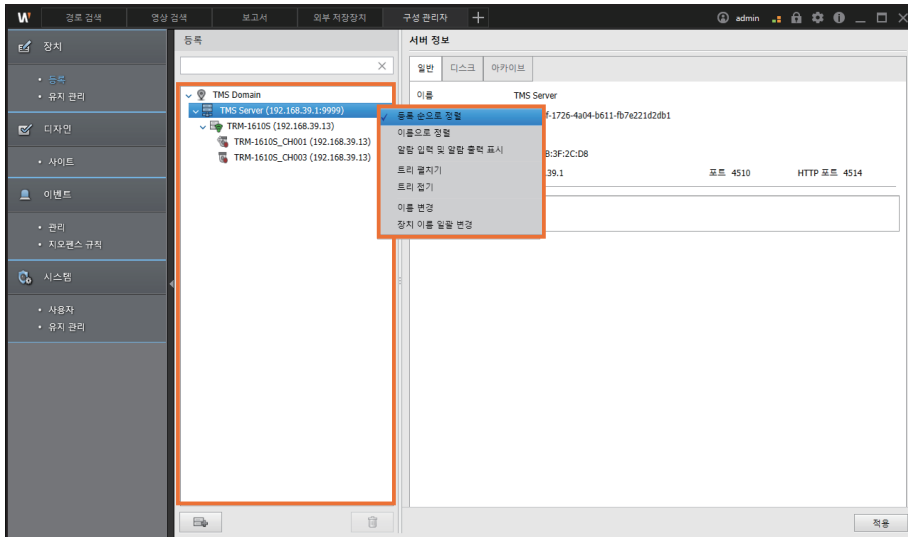
관리	TMS에서 사용하는 모든 종류의 이벤트를 관리할 수 있습니다.
지오펜스 규칙	차량이 특정 영역에 침범하거나 이탈할 경우 지오펜스 이벤트가 발생하도록 지오펜스 규칙을 설정할 수 있습니다.

- 시스템 메뉴에서는 다양한 시스템 설정을 할 수 있습니다.

사용자	TMS Server의 사용자 그룹이나 사용자를 추가할 수 있습니다. 또한 사용자 그룹별로 권한을 설정할 수 있습니다.
유지 관리	TMS Server의 시스템을 유지 관리할 수 있습니다.

장치 목록 및 바로 가기 메뉴 알아보기

등록된 장치 목록을 확인할 수 있습니다. 바로 가기 메뉴를 이용하여 장치 목록을 원하는 기준으로 정렬하거나 장치 이름을 변경할 수 있습니다.



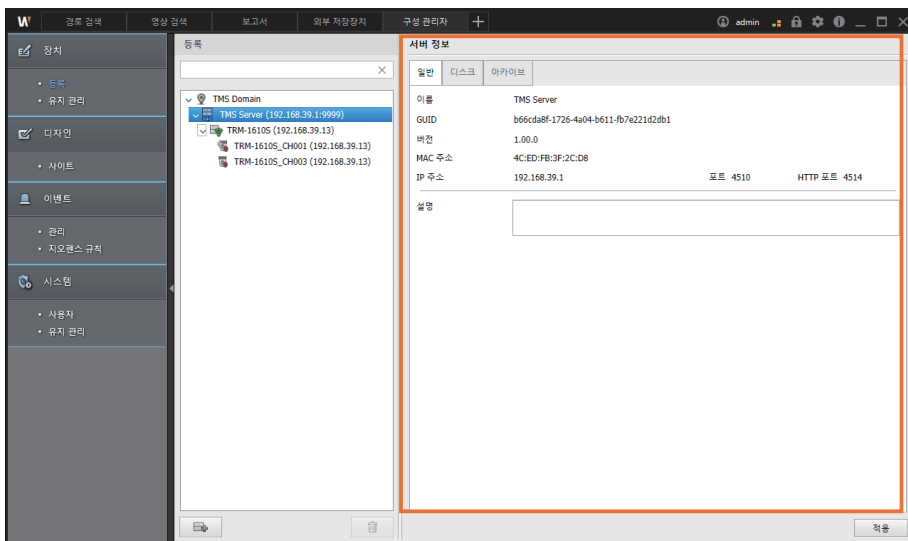
• 바로 가기 메뉴

등록 순으로 정렬	장치를 등록한 순으로 정렬합니다.
이름으로 정렬	장치를 이름순으로 정렬합니다.
알람 입력 및 알람 출력 표시	장치의 알람 입력과 알람 출력을 보여줍니다.
트리 펼치기 트리 접기	장치 목록을 확장 또는 축소합니다.
이름 변경	선택된 장치의 이름을 변경합니다.
장치 이름 일괄 변경	등록된 장치의 이름을 일괄 변경합니다.

-  버튼을 클릭하면 장치를 등록할 수 있습니다. 자세한 내용은 [장치 등록하기](#)를 참고하세요.
-  버튼을 클릭하면 선택한 장치를 삭제할 수 있습니다. 자세한 내용은 [장치 삭제하기](#)를 참고하세요.

상세 정보 알아보기

목록에서 선택한 장치의 상세 정보를 확인하거나 수정할 수 있습니다.



- 수정한 장치 정보를 적용하려면 페이지 아래의 **적용** 버튼을 클릭하세요.
- 상세 정보 창이 탭으로 구성되었다면 각 탭의 **적용** 버튼을 클릭해야 수정한 정보가 저장됩니다.

장치 설정하기

도메인에 **TMS Server**를 추가하고 장치를 등록할 수 있습니다. **TMS Server**와 등록된 장치의 정보를 수정하거나 설정을 변경할 수 있습니다.

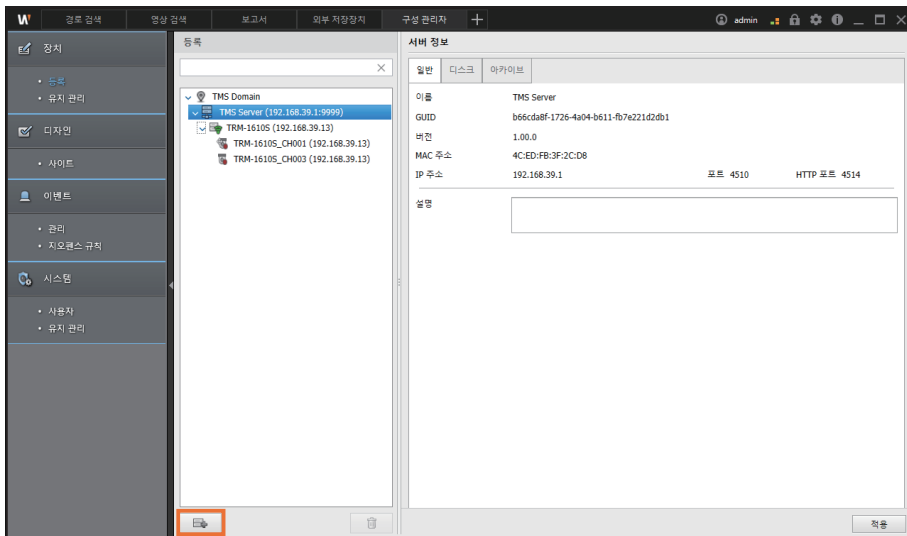
장치 등록하기

TMS Server에 등록할 수 있는 장치를 목록에서 검색하여 자동으로 등록하거나 장치 정보를 직접 입력하여 수동으로 등록할 수 있습니다.

자동으로 장치 등록하기

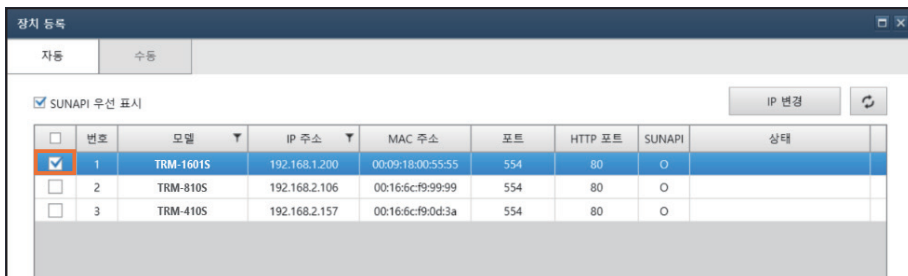
TMS Server에 등록할 수 있는 장치 목록을 자동으로 검색하여 등록할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 장치를 등록할 **TMS Server**를 선택하세요.
4.  버튼을 클릭하세요. **장치 등록** 대화 상자가 나타납니다.

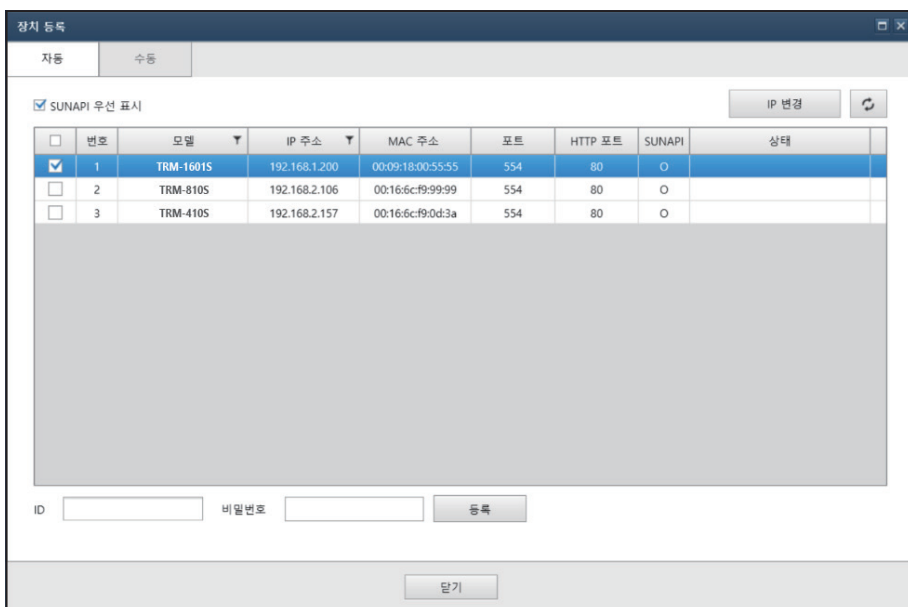


5. 등록할 장치를 선택하세요.

ID와 비밀번호가 같은 장치는 여러 개를 선택하여 일괄 등록할 수 있습니다.



6. ID와 비밀번호를 입력하세요.



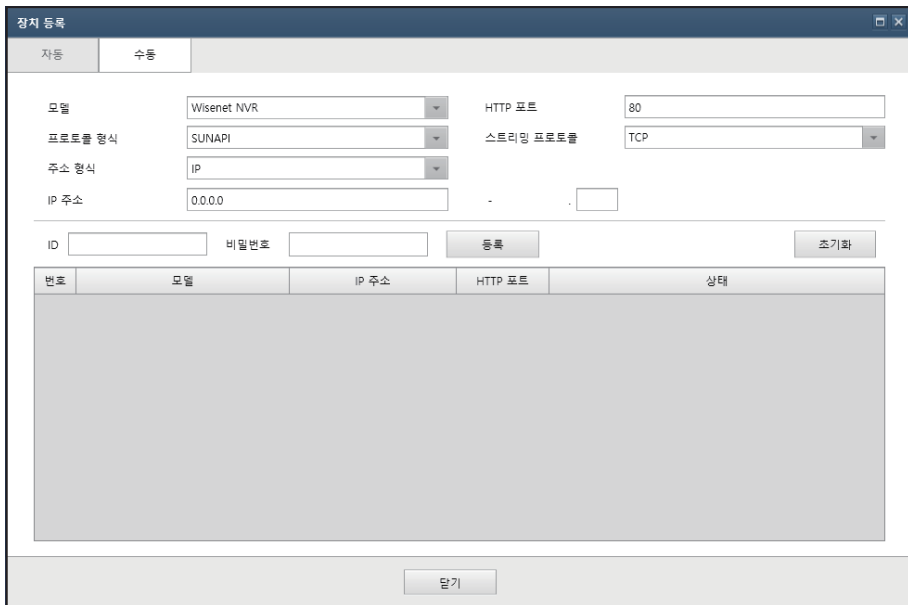
7. 등록 버튼을 클릭하세요.

- 장치를 등록하지 못하면 상태 칼럼에 오류 메시지가 표시됩니다.
- 장치를 등록하면 상태 칼럼에 **등록됨**이라고 표시되며 장치 트리의 **TMS Server** 아래에 장치가 나타납니다.

수동으로 장치 등록하기

TMS Server에 등록할 수 있는 장치 정보를 직접 입력하여 등록할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 장치를 등록할 **TMS Server**를 선택하세요.
4.  버튼을 클릭하세요. **장치 등록** 대화 상자가 나타납니다.
5. **수동** 탭을 클릭하세요.



The screenshot shows the '장치 등록' (Device Registration) dialog box with the '수동' (Manual) tab selected. The form contains the following fields and options:

- 모델 (Model):** Wisenet NVR
- 프로토콜 형식 (Protocol Format):** SUNAPI
- 주소 형식 (Address Format):** IP
- IP 주소 (IP Address):** 0.0.0.0
- HTTP 포트 (HTTP Port):** 80
- 스트리밍 프로토콜 (Streaming Protocol):** TCP
- ID:** (Empty field)
- 비밀번호 (Password):** (Empty field)
- Buttons:** 등록 (Register), 초기화 (Reset), 닫기 (Close)

Below the form is a table with the following headers: 번호 (No.), 모델 (Model), IP 주소 (IP Address), HTTP 포트 (HTTP Port), and 상태 (Status). The table body is currently empty.

6. 주소 형식을 IP, URL, Wisenet DDNS 중 선택하세요.
7. HTTP 포트, 스트리밍 프로토콜, IP 주소와 같은 기타 장치 정보를 입력하세요.
 - 주소 형식에 따라 입력해야 하는 정보가 다를 수 있습니다.
 - 여러 개의 장치를 수동으로 한 번에 등록하려면 IP 주소에 범위를 입력하면 장치를 일괄 등록할 수 있습니다.

8. 등록할 장치의 ID와 비밀번호를 입력하세요.

장치 등록

자동 수동

모델: Wisenet NVR HTTP 포트: 80

프로토콜 형식: SUNAPI 스트리밍 프로토콜: TCP

주소 형식: IP

IP 주소: 192.168.216.1 - 192.168.216.100

ID: admin 비밀번호: ***** 취소 초기화

번호	모델	IP 주소	HTTP 포트	상태
1	Wisenet NVR	192.168.216.1	80	등록 진행 중...
2	Wisenet NVR	192.168.216.2	80	
3	Wisenet NVR	192.168.216.3	80	
4	Wisenet NVR	192.168.216.4	80	
5	Wisenet NVR	192.168.216.5	80	
6	Wisenet NVR	192.168.216.6	80	
7	Wisenet NVR	192.168.216.7	80	
8	Wisenet NVR	192.168.216.8	80	
9	Wisenet NVR	192.168.216.9	80	
10	Wisenet NVR	192.168.216.10	80	

결과 : 0 등록됨, 0 실패

닫기

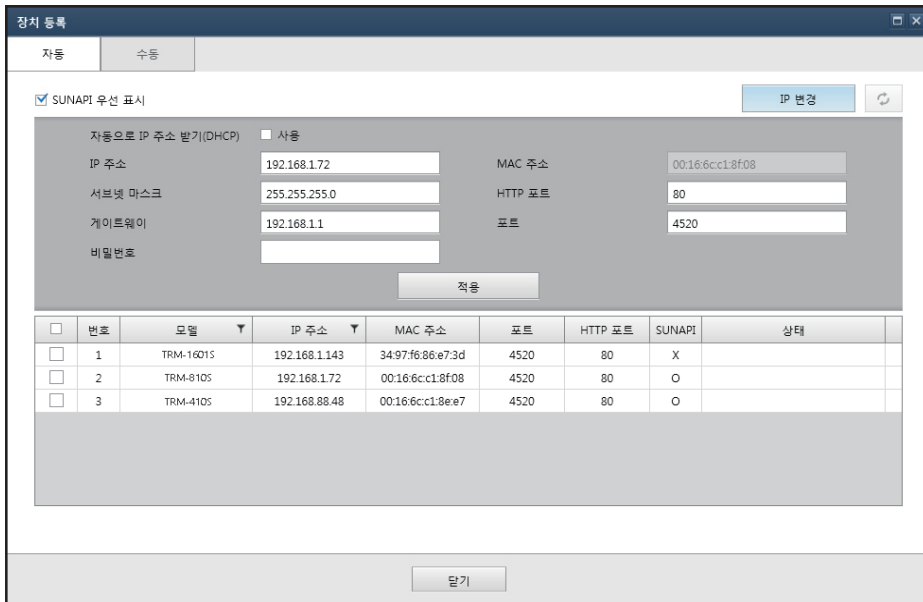
9. 등록 버튼을 클릭하세요.

- 장치를 등록하지 못하면 상태 칼럼에 오류 메시지가 표시됩니다.
- 여러 개의 장치를 한 번에 등록할 때 **취소** 버튼을 클릭하면 등록이 안 된 장치는 등록을 취소할 수 있습니다.
- 초기화** 버튼을 클릭하면 등록 결과가 초기화됩니다.

장치 IP 주소 변경하기

저장 장치를 자동 등록할 때 장치의 네트워크 정보를 변경할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 **TMS Server**를 선택하세요.
4.  버튼을 클릭하세요. **장치 등록** 대화 상자가 나타납니다.
5. 원하는 장치를 선택하세요. ID와 비밀번호가 같은 장치는 여러 개를 선택하여 일괄 변경할 수 있습니다.
6. **IP 변경** 버튼을 클릭하세요.



번호	모델	IP 주소	MAC 주소	포트	HTTP 포트	SUNAPI	상태
1	TRM-1601S	192.168.1.143	34:97:f6:86:e7:3d	4520	80	X	
2	TRM-810S	192.168.1.72	00:16:6c:c1:8f:08	4520	80	O	
3	TRM-410S	192.168.88.48	00:16:6c:c1:8e:e7	4520	80	O	

7. 새 IP 주소를 입력하세요. IP 주소를 자동으로 할당 받으려면 **자동으로 IP 주소 받기(DHCP)**를 **사용**으로 설정하세요.
8. **비밀번호**, **HTTP 포트**, **포트**와 같은 기타 정보를 입력하세요.
9. **적용** 버튼을 클릭하세요.



알아두기

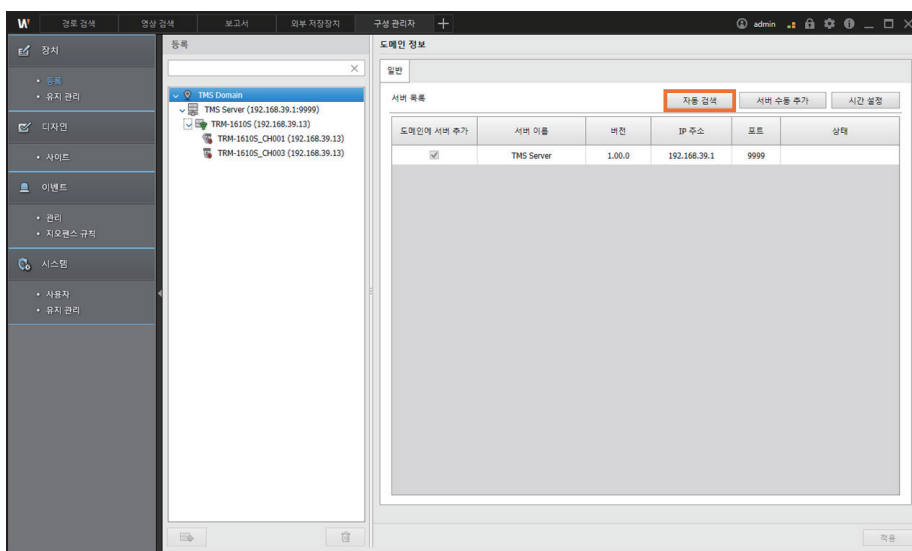
- 장치를 두 개 이상 선택하면 IP 주소 범위를 설정할 수 있는 입력란이 나타납니다. IP 주소 범위를 입력하고 **설정 테스트** 버튼을 클릭하면 상태 칼럼에 변경된 IP 주소가 표시됩니다.
- 장치의 IP 주소를 **자동으로 IP 주소받기(DHCP)**로 설정하려면 네트워크에 DHCP 서버가 설정되어 있어야 합니다.

도메인에 서버 설정하기

TMS 도메인에 여러 개의 **TMS Server**를 추가하여 클러스터링할 수 있습니다. 또한 이미 설정한 도메인 정보를 변경할 수 있습니다.

도메인에 자동으로 서버 추가하기

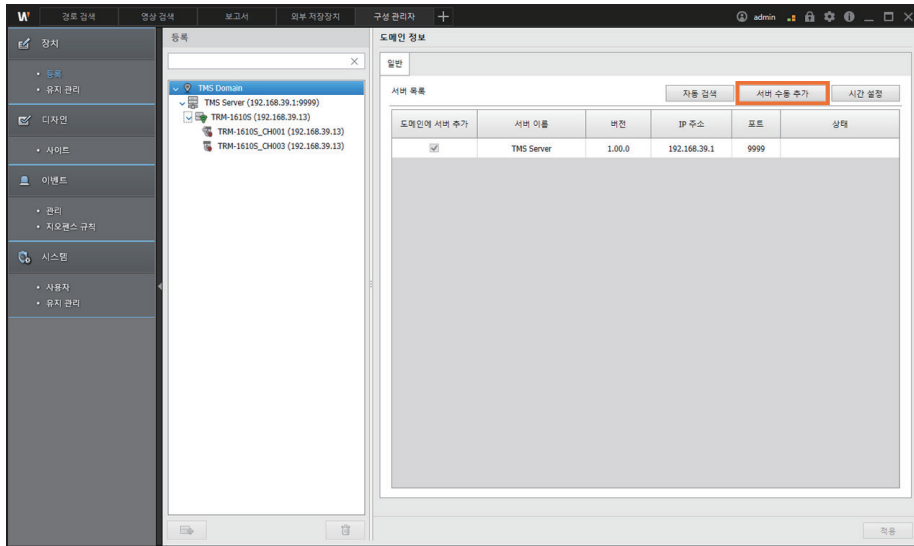
1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 서버를 추가할 **TMS Domain**을 선택하세요.
4. 도메인 정보 페이지에서 **자동 검색** 버튼을 클릭하세요.



5. 검색된 서버 목록에서 도메인에 추가할 서버를 선택하세요.
 6. 도메인에 서버 추가 대화 상자가 나타나면 선택한 **TMS Server**의 ID와 비밀번호를 입력하세요.
 7. 등록 버튼을 클릭하세요.
- 클러스터링이 되면 장치 목록의 **TMS Domain** 아래에 **TMS Server**가 표시됩니다.

도메인에 수동으로 서버 추가하기

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 서버를 추가할 **TMS Domain**을 선택하세요.
4. 도메인 정보 페이지에서 **서버 수동 추가** 버튼을 클릭하세요.



5. 서버 수동 추가 대화 상자가 나타나면 도메인에 추가할 서버의 **IP 주소, 포트, ID, 비밀번호**를 입력하세요.

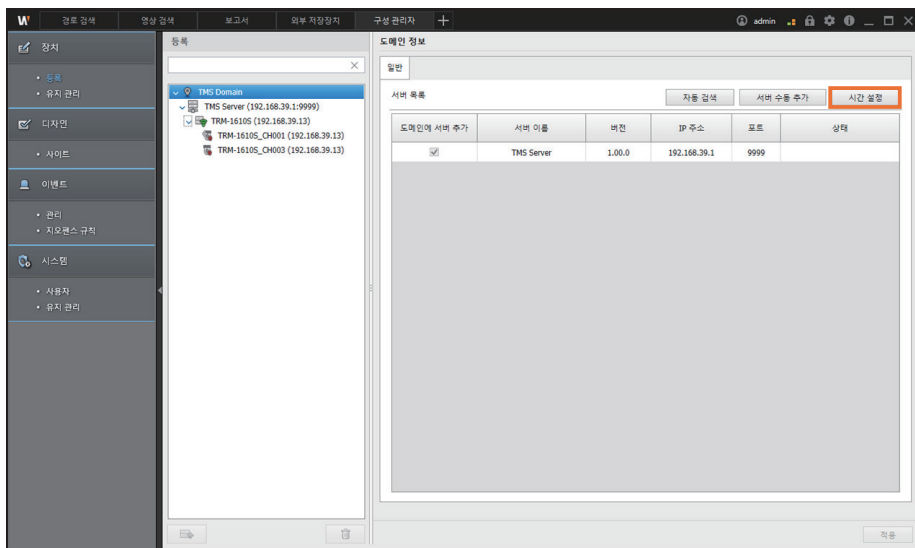
The dialog box titled '서버 수동 추가' (Add Server Manually) contains four input fields for 'IP 주소' (IP Address), '포트' (Port), 'ID', and '비밀번호' (Password). Below the fields are two buttons: '등록' (Register) and '취소' (Cancel).

6. **등록** 버튼을 클릭하세요.
클러스터링이 되면 장치 목록의 **TMS Domain** 아래에 **TMS Server**가 표시됩니다.

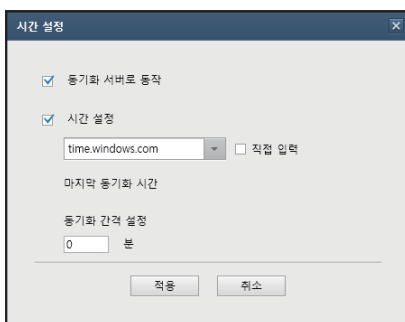
시간 동기화하기

TMS 도메인의 시스템 시간을 NTP 서버로 사용하거나 다른 NTP 서버 시간으로 동기화할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 서버를 추가할 **TMS Domain**을 선택하세요.
4. 도메인 정보 페이지에서 **시간 설정** 버튼을 클릭하세요.



5. 시간 설정 대화 상자가 나타나면 시간 동기화 항목을 설정하세요.



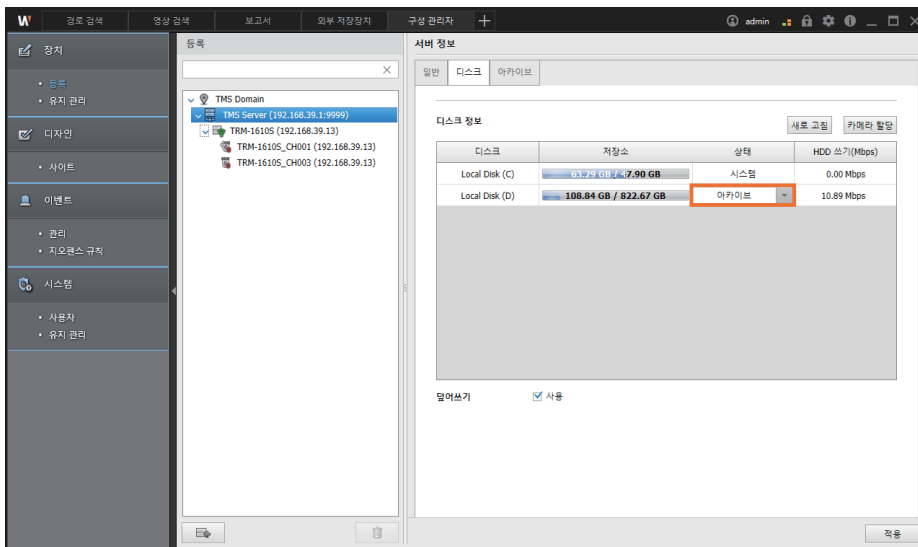
- **동기화 서버로 동작:** TMS 도메인의 시스템 시간을 NTP 서버로 설정할 수 있습니다. 다른 장치에서 TMS 도메인을 NTP 서버로 설정하면 TMS 도메인의 시스템 시간으로 동기화할 수 있습니다.
 - **시간 설정:** NTP 서버 주소 목록에서 원하는 서버를 선택하면 시스템 시간을 선택한 NTP 서버 시간으로 동기화할 수 있습니다. 직접 입력을 선택하면 사용자가 직접 서버 주소를 입력할 수 있습니다.
 - **마지막 동기화 시간:** NTP 서버 시간으로 동기화한 최근 시간이 표시됩니다.
 - **동기화 간격 설정:** 지정한 시간마다 시스템 시간을 NTP 서버 시간으로 동기화하게 됩니다.
6. 적용 버튼을 클릭하세요.

아카이브 설정하기

TMS Server의 디스크 상태를 변경하거나 아카이브 디스크에 자동으로 할당된 카메라 목록을 변경할 수 있습니다.

디스크 상태 설정하기

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 **TMS Server**를 선택하세요.
4. 서버 정보 페이지에서 **디스크** 탭을 클릭하세요.
5. 디스크 정보 페이지에서 변경할 디스크를 선택하세요.
6. 상태 칼럼의 목록을 클릭하여 변경할 디스크 상태 값을 설정하세요.



- **아카이브:** 모바일 NVR에 녹화된 카메라 영상을 TMS Server의 디스크로 아카이브할 수 있습니다. 아카이브된 카메라의 녹화 영상을 검색하거나 재생할 수 있습니다.
 - **해제:** 모바일 NVR에 녹화된 카메라 영상을 TMS Server의 디스크로 아카이브할 수 없습니다. 이미 아카이브된 카메라의 녹화 영상을 검색하거나 재생할 수 있습니다.
 - **시스템:** 윈도우 OS가 설치된 시스템 디스크입니다. 시스템 디스크에는 모바일 NVR에 녹화된 카메라 영상을 아카이브할 수 없습니다. TMS Server가 설치된 PC에 시스템 디스크만 있다면 아카이브할 수 없습니다.
7. **적용** 버튼을 클릭하세요.



알아두기

- **덮어쓰기:** 디스크의 여유 공간이 없을 때 기존 녹화 파일을 덮어쓸지 여부를 설정할 수 있습니다.
- **새로 고침:** 디스크 정보를 업데이트하여 볼 수 있습니다.

디스크에 카메라 할당하기

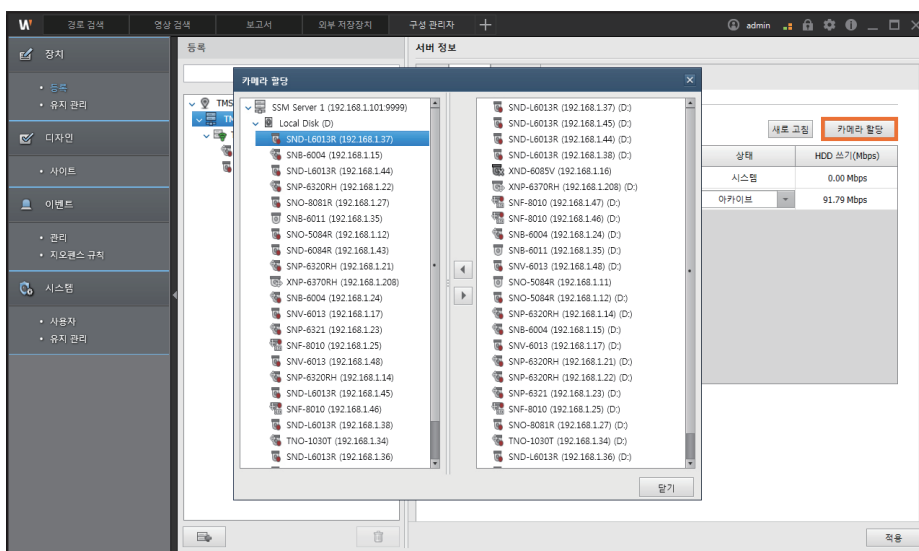
TMS Server에 모바일 NVR을 등록하면 모바일 NVR에 등록된 카메라의 녹화 영상을 저장할 아카이브 디스크가 자동으로 설정됩니다. 자동으로 설정된 디스크가 아닌 다른 디스크를 아카이브 디스크로 설정할 수 있습니다.



알아두기

카메라에 저장 디스크가 지정되지 않으면 카메라의 녹화 영상을 아카이브할 수 없습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 **TMS Server**를 선택하세요.
4. 서버 정보 페이지에서 **디스크** 탭을 클릭하세요.
5. 디스크 정보 페이지에서 **카메라 할당** 버튼을 클릭하세요.



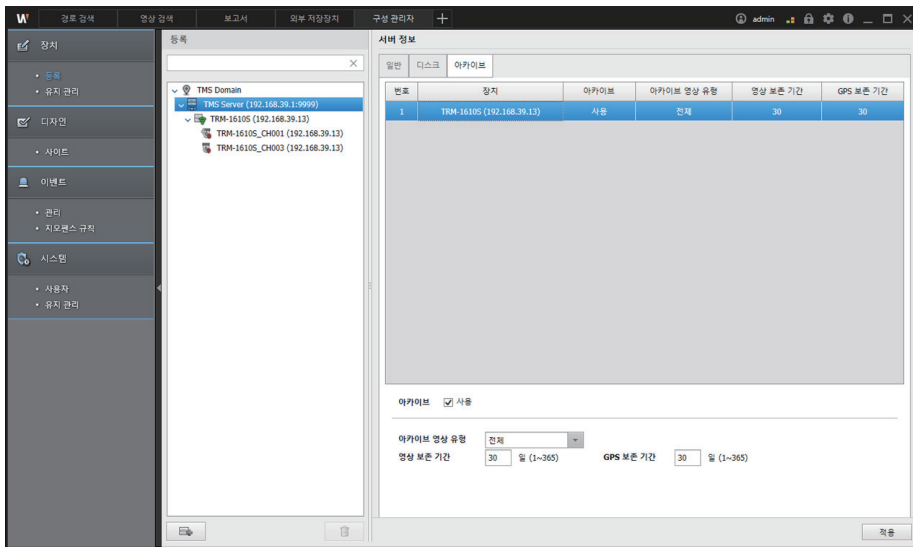
6. **카메라 할당** 대화 상자가 나타나면 왼쪽 디스크 목록에서 **TMS Server**와 녹화 영상을 저장할 디스크를 선택하세요.
7. 선택한 디스크에 아카이브할 카메라를 오른쪽 카메라 목록에서 선택하세요.
8.  버튼을 클릭해서 디스크에 카메라를 추가하세요.
 - 디스크 아래에 선택한 카메라가 표시됩니다.
 - 카메라 한 개를 여러 디스크에 할당할 수 있습니다.

아카이브 설정 수정하기

TMS Server에 등록된 장치의 녹화 영상에 대한 아카이브 설정을 수정할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 **TMS Server**를 선택하세요.
4. 서버 정보 페이지에서 **아카이브** 탭을 클릭하세요.
5. 목록에서 원하는 장치를 선택하세요.

여러 장치의 설정을 일괄 변경하려면 [Ctrl] 또는 [Shift] 키를 눌러 원하는 장치를 선택하세요.



6. 선택한 장치의 녹화 영상에 대한 아카이브 설정을 수정하세요.

- **아카이브 영상 유형**

- **전체**: 모바일 NVR에 녹화된 영상 전체를 TMS Server로 아카이브합니다.
- **이벤트**: 모바일 NVR에 녹화된 이벤트 영상만 TMS Server로 아카이브합니다.

- **영상 보존 기간/GPS 보존 기간**

- 장치별로 기간을 설정할 수 있고, 설정한 기간이 지나면 녹화 파일은 자동으로 삭제됩니다.
- 기간은 1일에서 365일 범위 내에서 직접 입력하세요.

7. 적용 버튼을 클릭하세요.



알아두기

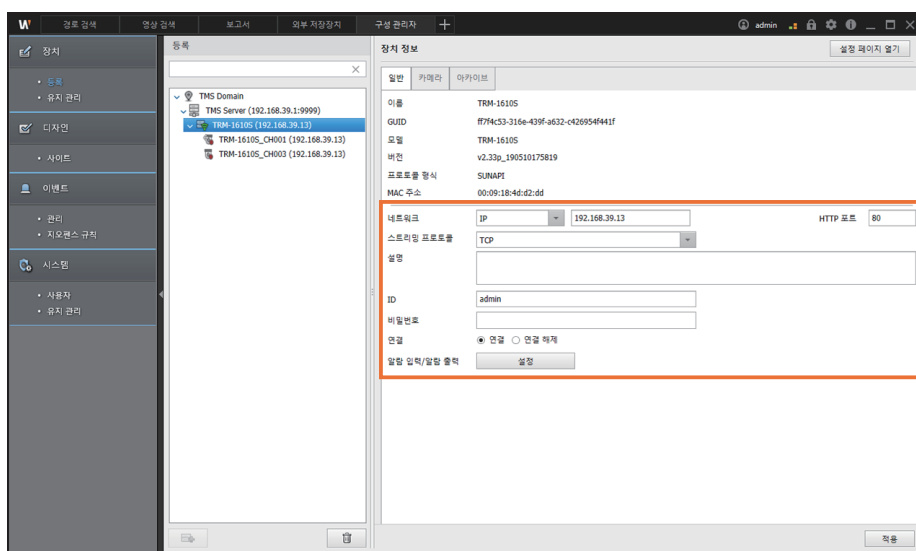
- TMS에 영상을 저장할 때 최대 속도는 520Mbps입니다.
- 녹화 안정성을 위해 SATA2 7200rpm 이상의 HDD를 사용하세요(HDD 1개당 저장 처리량은 최대 130Mbps).
- 녹화된 영상은 **TMS Console**의 **영상 검색** 메뉴에서 검색 및 재생할 수 있습니다.

장치 정보 설정하기

장치 정보 수정하기

TMS Server에 등록된 장치의 설정 정보를 변경할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 장치를 선택하세요.
4. 장치 정보를 수정하세요.



- **연결:** 장치를 연결하거나 연결을 해제할 수 있습니다.
 - **알람 입력/알람 출력:** 설정 버튼을 클릭하여 추가할 알람 입력 또는 알람 출력을 선택하세요.
5. **적용** 버튼을 클릭하세요.



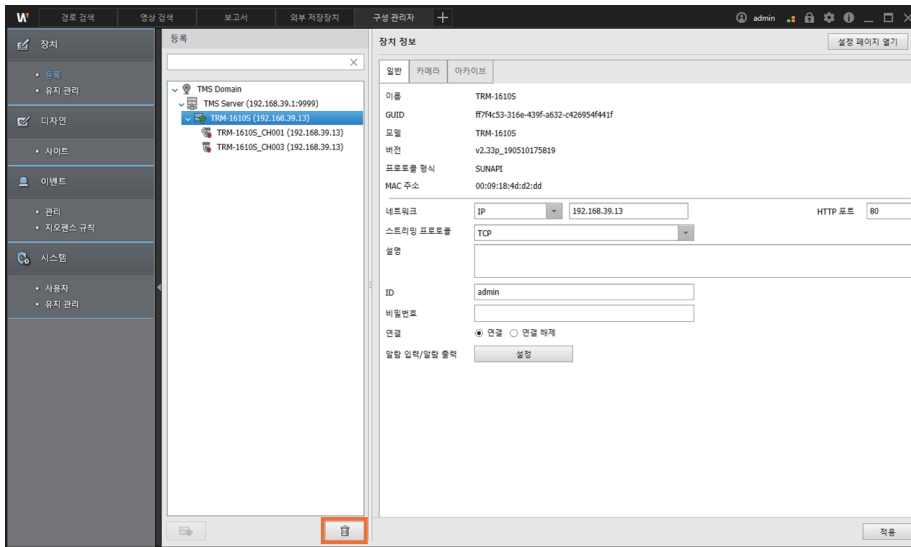
알아두기

- 장치 고장 등으로 다른 장치로 교체하면, 장치 교체를 묻는 대화 상자가 나타납니다.
 - **예** 버튼을 클릭하면 장치가 교체됩니다.
 - **아니오** 버튼을 클릭하면 원래 장치 설정을 유지합니다.
 - 장치 교체는 같은 모델의 장치로만 가능합니다.

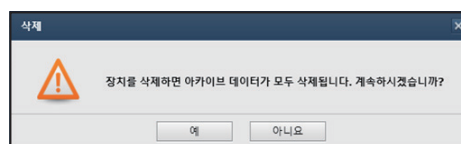
장치 삭제하기

TMS Server에 등록된 장치와 카메라를 삭제할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 장치를 선택하세요.
4.  버튼을 클릭하세요.



5. 삭제 대화 상자가 나타나면 **예** 버튼을 클릭하세요.



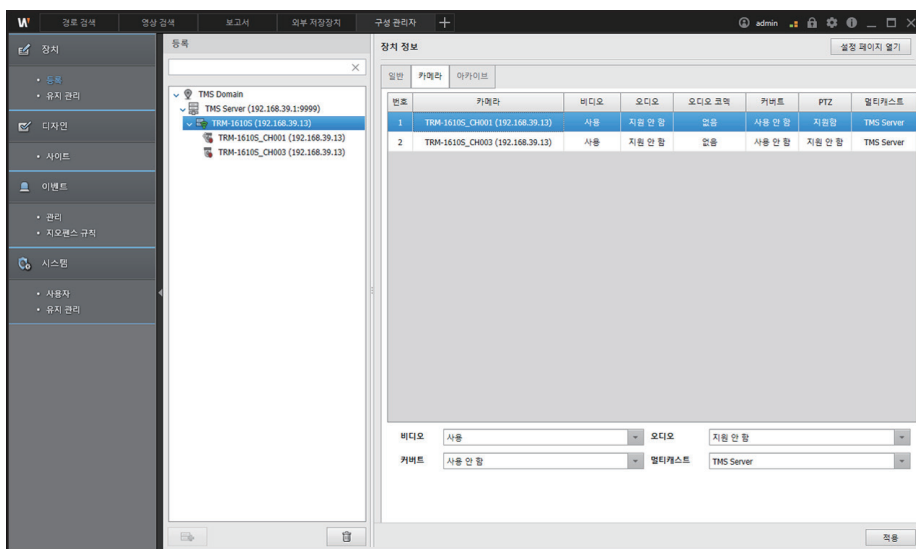
- 장치를 삭제하면 **TMS Server**에 아카이브된 장치 데이터가 모두 삭제됩니다.
- **TMS Server**에 등록된 여러 장치를 일괄 삭제하려면 **[Ctrl]** 또는 **[Shift]** 키를 눌러 원하는 장치를 선택하세요.

카메라 프로파일 설정하기

TMS Server에 등록된 카메라의 프로파일을 확인하고 변경할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 장치를 선택하세요.
4. **장치 정보** 페이지에서 **카메라** 탭을 클릭하세요.
5. 카메라 목록에서 원하는 카메라를 선택하세요.

여러 카메라의 설정을 일괄 변경하려면 **[Ctrl]** 또는 **[Shift]** 키를 눌러 원하는 카메라를 선택하세요.



6. 카메라의 프로파일을 설정하세요.

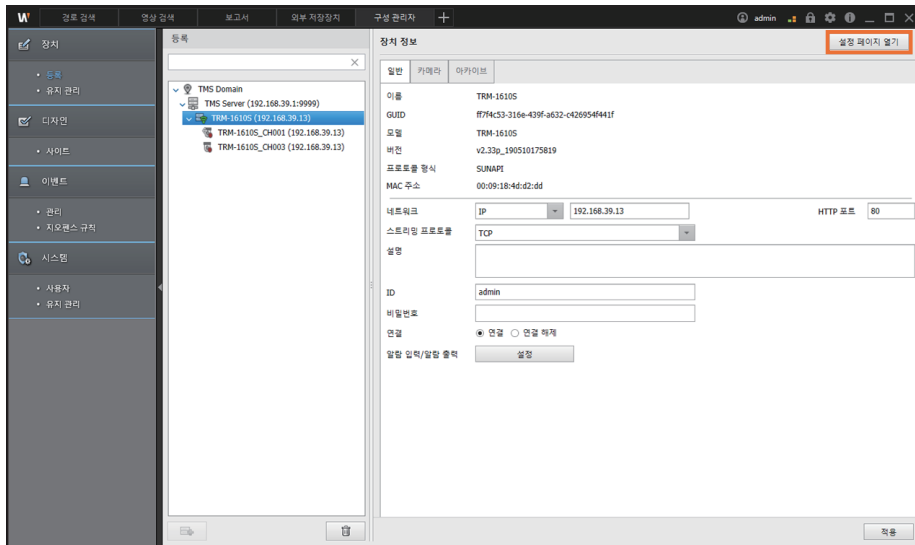
- **비디오:** **사용 안 함**으로 설정하면 영상을 모니터링할 때 비디오를 볼 수 없고, 오디오가 자동으로 **지원 안 함**으로 설정됩니다.
- **오디오:** **사용 안 함**으로 설정하면 영상을 모니터링할 때 오디오를 들을 수 없습니다.
- **커버트:** 커버트를 **사용**으로 설정하면 비디오와 오디오의 저장은 가능하지만 모니터링은 할 수 없습니다. 커버트를 **사용 안 함**으로 설정하면 이전에 커버트로 설정하여 녹화한 영상을 재생할 수 있습니다.
- **멀티캐스트:** 카메라 데이터 전송 방식을 멀티캐스트로 설정할 수 있습니다. **TMS Server**를 선택하면 TMS Server에서 TMS Console로 데이터를 멀티캐스트로 전송할 수 있습니다.
 - 멀티캐스트는 데이터를 수신하는 상대가 여러 개의 주소로 구성된 특정 그룹일 때 사용합니다. 여러 개의 네트워크 장치로 데이터를 전송할 때 한 번에 여러 장치로 데이터를 전송할 수 있습니다.

7. **적용** 버튼을 클릭하세요.

장치 웹뷰어 열기

TMS Server에 등록된 모바일 NVR의 설정을 웹뷰어를 통해 원격에서 변경할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 장치를 선택하세요.
4. **설정 페이지 열기** 버튼을 클릭하세요.

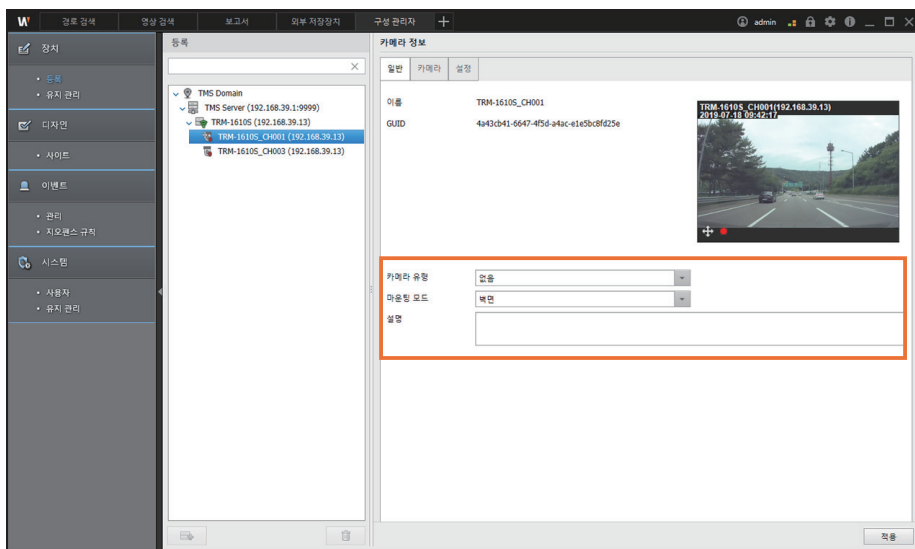


5. 웹 브라우저에 장치 웹뷰어가 나타나면 장치의 ID와 비밀번호를 입력하세요.
6. **확인** 버튼을 클릭하세요.

카메라 정보 수정하기

TMS Server에 등록된 카메라의 설정 정보를 변경할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 카메라를 선택하세요.
4. 카메라 정보를 수정하세요.



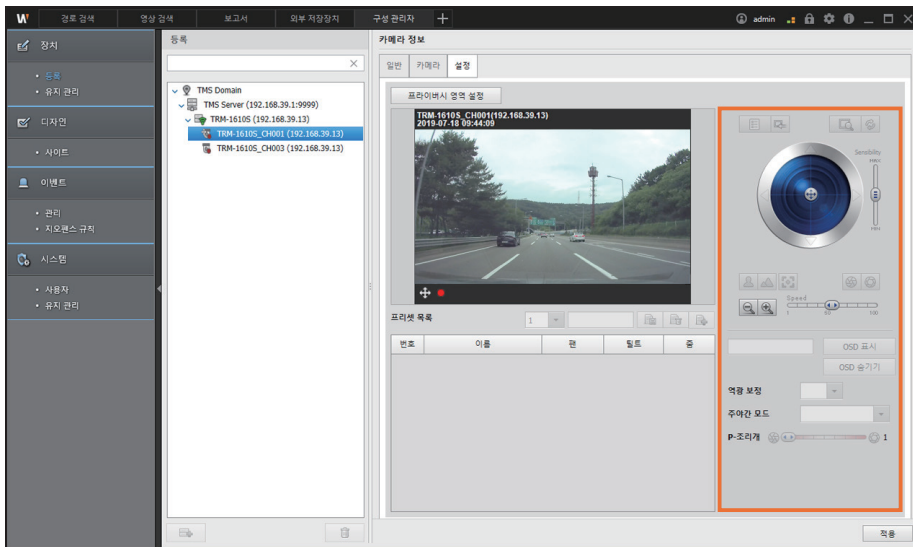
- **카메라 유형:** 박스, 돔, PTZ, PT 드라이버, Fish-eye 7010, Fish-eye 8010, Fish-eye 9010 중 선택할 수 있습니다.
카메라 유형을 설정하면 장치 목록에 설정한 카메라 유형의 아이콘이 표시됩니다.
- **마운팅 모드:** 카메라의 설치 위치를 벽면, 천정, 바닥 중 선택할 수 있습니다.
- **카메라 영상 미리보기:** 등록된 카메라 목록에서 원하는 카메라에 마우스를 올리면 카메라의 영상이 섬네일로 나타납니다.
미리보기를 지원하지 않는 카메라의 경우 마우스를 올리면 **미리보기 지원 안 함** 툴팁이 나타납니다.

5. **적용** 버튼을 클릭하세요.

카메라 설정 제어하기

TMS Server에 등록된 카메라의 포커스, 조리개, 역광 보정, 주야간 모드, 디지털 줌 등을 제어할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 카메라를 선택하세요.
4. **카메라 정보** 페이지에서 **설정** 탭을 클릭하세요.
5. 카메라 설정 정보를 수정하세요.



- **심플 포커스**  : 카메라의 포커스를 자동으로 조절할 수 있습니다.
- **포커스**: 카메라의 포커스를 수동으로 조절할 수 있습니다.  버튼은 포커스를 가까이,  버튼은 포커스를 멀리 이동시킵니다. SUNAPI 프로토콜로 등록한 카메라의 경우 포커스 이동 간격을 설정할 수 있습니다.
- **디지털 줌 확대**  / **축소**  : 원하는 배율로 영상을 확대하거나 축소할 수 있습니다. SUNAPI 프로토콜로 등록한 카메라의 경우 줌 이동 간격을 설정할 수 있습니다.
- **OSD 표시/OSD 숨기기**: 카메라 영상에 OSD를 표시할지 여부를 설정할 수 있습니다.
- **역광 보정**: 역광 보정 모드, WDR 모드로 선택할 때만 레벨 값을 설정할 수 있습니다.
- **주야간 모드**: 컬러, 흑백, 자동 중 선택할 수 있습니다.
- **P-조리개**: 박스, 돔 카메라에서 설정한 수치만큼 조리개를 열어서 빛 노출을 조절할 수 있습니다. 슬라이드로 조절하거나 값을 입력하여 설정할 수 있으며, 값이 커질수록 빛의 양이 많아져 화면이 밝아집니다.

6. **적용** 버튼을 클릭하세요.



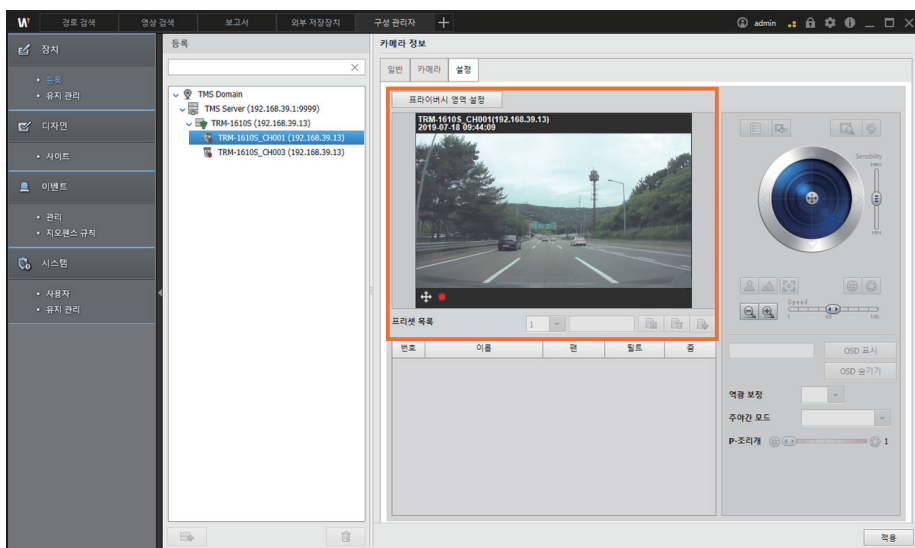
알아두기

카메라 모델에 따라 지원하는 설정 메뉴가 달라질 수 있습니다.

프라이버시 영역 설정하기

저장 영상에서 사생활 보호가 필요한 영역이나 모니터링이 불필요한 일부 영역을 프라이버시 영역으로 설정할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 등록**을 클릭하세요.
3. 장치 목록에서 원하는 카메라를 선택하세요.
4. **카메라 정보** 페이지에서 **설정** 탭을 클릭하세요.
5. **프라이버시 영역 설정** 버튼을 클릭한 후 영상 위에 프라이버시 영역을 설정하세요.
 - 마우스를 클릭하면 사각형이 나타납니다. 원하는 위치에서 다시 한 번 마우스를 클릭하면 프라이버시 영역이 설정됩니다.
 - 프라이버시 영역은 8개까지 설정할 수 있습니다.



6. **적용** 버튼을 클릭하세요.
7. **프라이버시 영역** 표시 여부를 다음 경로로 이동하여 설정하세요.
 구성 관리자 > 시스템 > 사용자 > 사용자그룹 선택 > 기능별 권한 > 프라이버시 영역 선택
 - 설정에 따라 **영상 검색** 메뉴에서 녹화 화면에 프라이버시 영역이 표시됩니다.
8. **적용** 버튼을 클릭하세요.

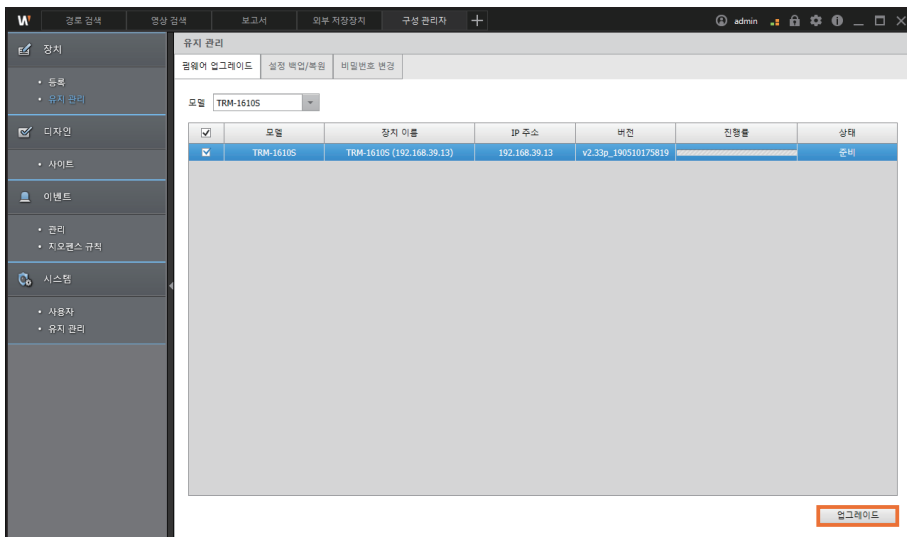
장치 유지 관리하기

TMS Server에 등록된 장치의 펌웨어를 업그레이드하거나 설정 정보를 백업 또는 복원할 수 있고, 장치의 비밀번호를 원격으로 변경할 수 있습니다.

펌웨어 업그레이드하기

TMS Server에 등록된 장치의 펌웨어를 업그레이드할 수 있습니다.

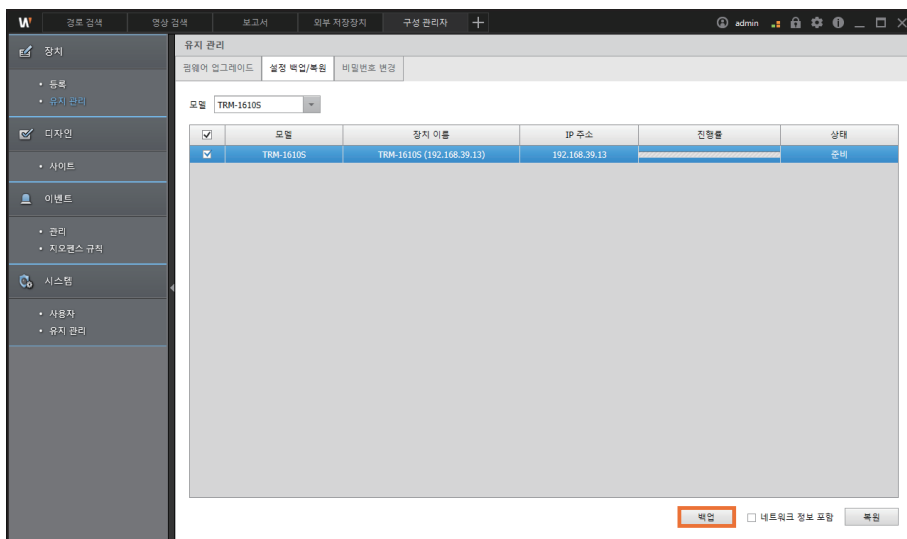
1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 유지 관리**를 클릭하세요.
3. 유지 관리 페이지에서 **펌웨어 업그레이드** 탭을 클릭하세요.
4. 모델에서 원하는 장치를 선택하세요.
5. 업그레이드할 장치를 선택한 후 **업그레이드** 버튼을 클릭하세요.
같은 모델의 장치를 여러 개 선택하여 동시에 펌웨어 업그레이드를 할 수 있습니다.
6. 펌웨어 파일을 선택하세요. 업그레이드 진행률과 상태가 칼럼에 표시됩니다.



설정 정보 백업하기

TMS Server에 등록된 장치의 설정 정보를 백업할 수 있습니다.

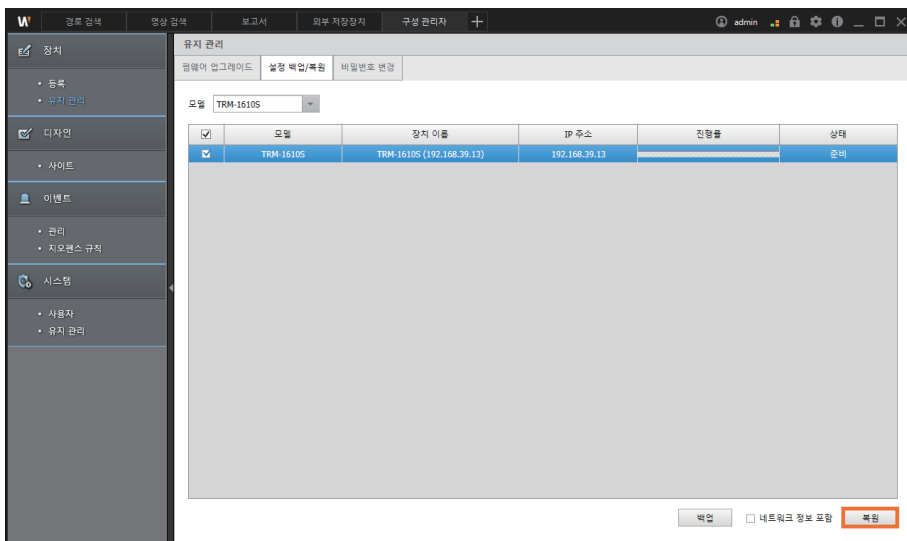
1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 유지 관리**를 클릭하세요.
3. 유지 관리 페이지에서 **설정 백업/복원** 탭을 클릭하세요.
4. 모델 목록에서 원하는 모델을 선택하세요.
5. **백업** 버튼을 클릭한 후 설정 정보를 저장할 파일 경로를 설정하세요.



설정 정보 복원하기

TMS Server에 등록된 장치의 설정 정보를 백업한 시점의 설정으로 복원할 수 있습니다. 장치의 설정 파일을 여러 개 생성한 후 장치의 사용 용도나 환경에 따라서 원하는 설정으로 복원하여 사용할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 유지 관리**를 클릭하세요.
3. 유지 관리 페이지에서 **설정 백업/복원** 탭을 클릭하세요.
4. 모델 목록에서 원하는 모델을 선택하세요.
5. 복원 버튼을 클릭한 후 백업한 설정 파일을 선택하세요.



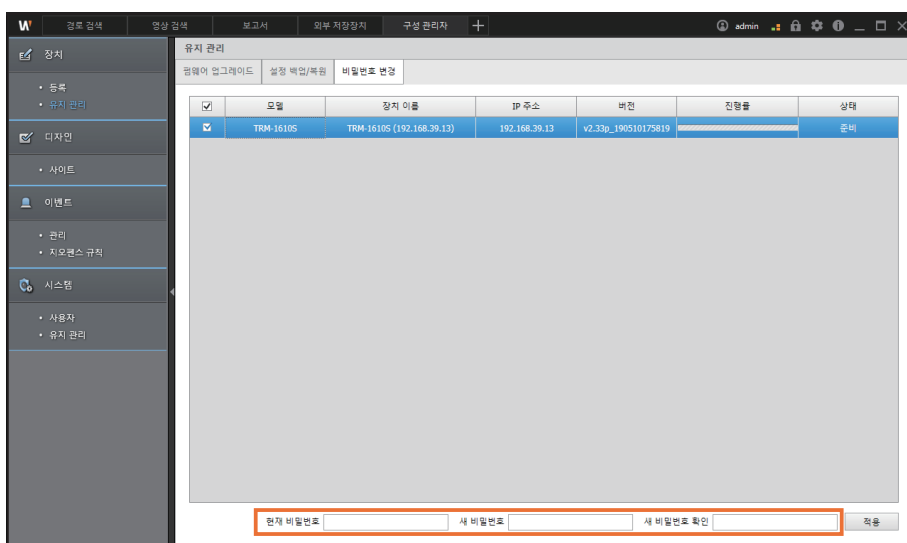
알아두기

- 장치 설정을 복원할 때 **네트워크 정보 포함**을 선택하면 장치의 네트워크 정보가 백업 파일의 네트워크 설정으로 변경됩니다.
- 설정 복원은 여러 장치를 선택하여 일괄 복원할 수 있지만, 설정 백업은 한번에 한 개의 장치만 백업할 수 있습니다.

비밀번호 변경하기

TMS Server에 등록된 장치의 비밀번호를 변경할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **장치 > 유지 관리**를 클릭하세요.
3. **유지 관리** 페이지에서 **비밀번호 변경** 탭을 클릭하세요.
4. 비밀번호를 변경할 장치를 선택하세요.
ID와 비밀번호가 같은 여러 장치의 설정을 일괄 변경하려면 **[Ctrl]** 또는 **[Shift]** 키를 눌러 원하는 장치를 선택하세요.
5. 선택한 장치의 현재 비밀번호를 입력한 후 새 비밀번호를 설정하세요.



6. **적용** 버튼을 클릭하세요.

디자인 설정하기

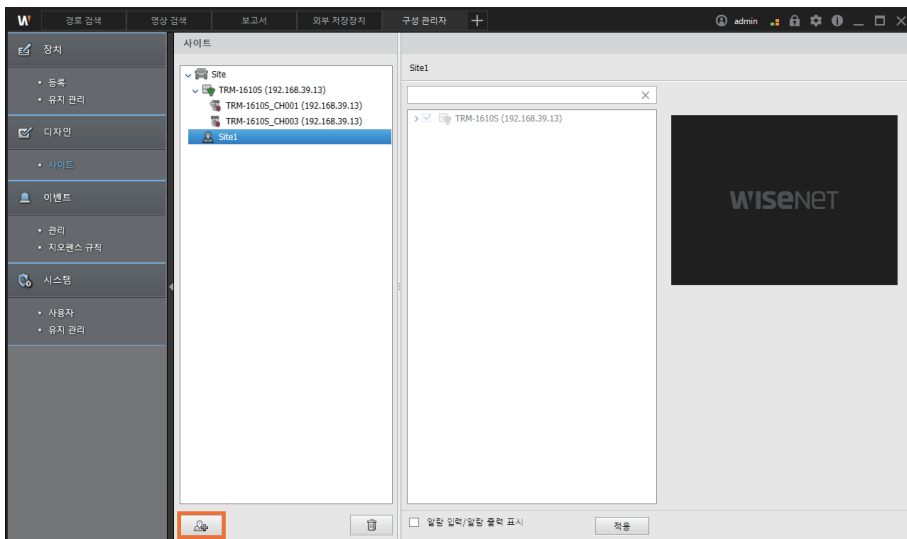
TMS Server에 등록된 장치를 관리 기준에 따라 분류하여 운영할 수 있습니다. 분류 기준에 따라 사이트를 만들고 해당 사이트에 장치를 할당하거나 해제할 수 있습니다.

사이트 설정하기

사이트 생성하기

지역, 노선, 차량 기지 등으로 사이트를 구성하여 장치를 관리할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 디자인 > 사이트를 클릭하세요.
3. 사이트 페이지 아래의  버튼을 클릭하세요. 사이트가 생성됩니다.

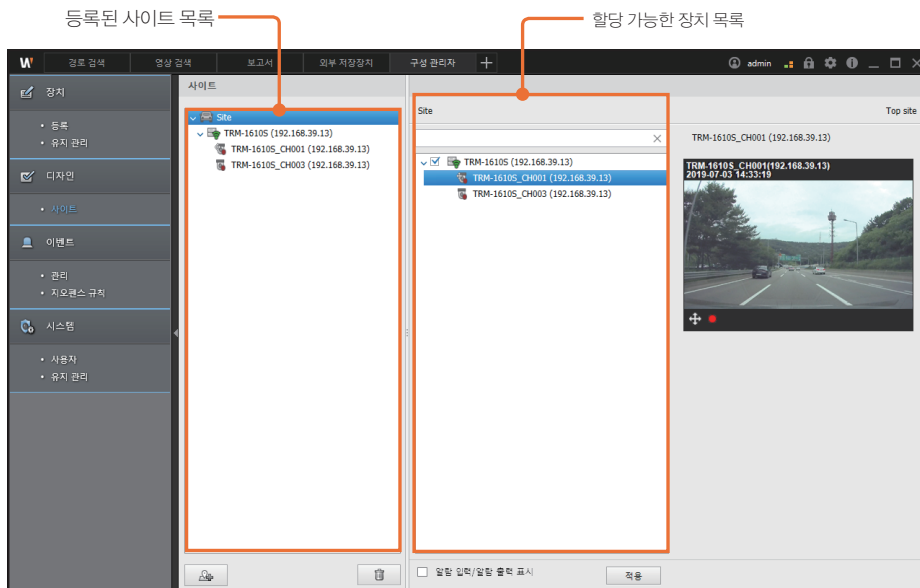


- 사이트를 삭제하려면 사이트 목록에서 원하는 사이트를 선택한 후  버튼을 클릭하세요. 해당 사이트를 포함한 하위 모든 사이트와 할당된 장치가 삭제됩니다.
 - 최상위 사이트는 프로그램 설치 시 기본적으로 제공되며 삭제할 수 없습니다.
4. 적용 버튼을 클릭하세요.

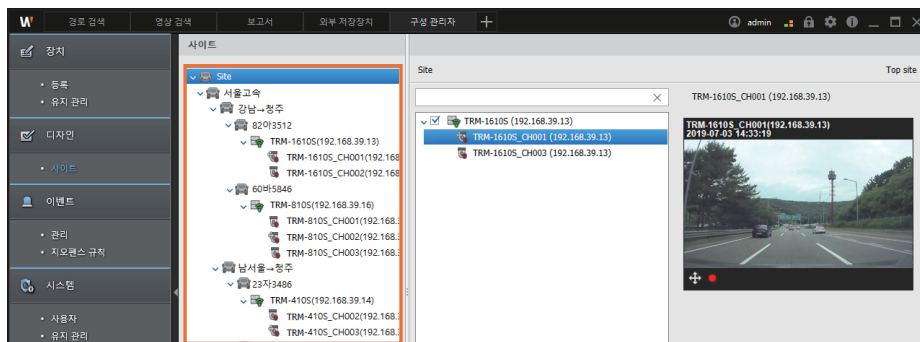
사이트에 장치 할당하기

원하는 사이트에 장치를 할당하거나 해제할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **디자인 > 사이트**를 클릭하세요.
3. 할당 가능한 장치 목록에서 사이트에 추가할 장치의 체크 박스를 클릭하세요.

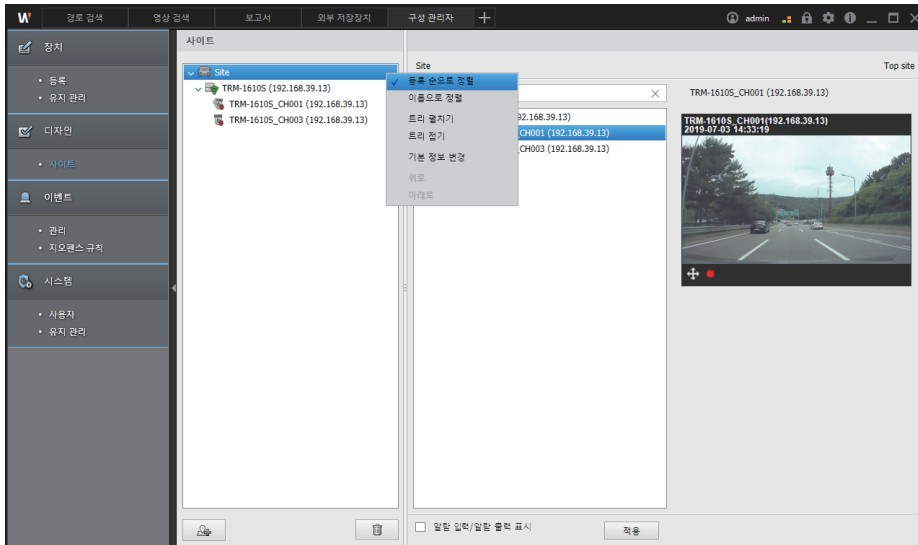


- 검색 창에서 장치를 검색할 수 있습니다.
 - 장치를 선택하면 오른쪽 화면에 해당 장치의 미리보기 화면이 나타납니다.
 - 여러 사이트에 장치를 중복하여 할당할 수 없습니다.
 - 사이트에 추가된 장치를 삭제하려면 장치 목록에서 삭제할 장치의 체크 박스를 클릭하여 해제하세요.
4. **적용** 버튼을 클릭하세요. 선택한 장치가 해당 사이트에 할당됩니다.
- 아래는 사이트 구성 및 활용 예시입니다.



사이트 목록 및 바로 가기 메뉴 알아보기

등록된 사이트 목록을 확인할 수 있습니다. 바로 가기 메뉴를 이용하여 장치 목록을 원하는 기준으로 정렬하거나 장치 정보를 변경할 수 있습니다.



등록 순으로 정렬	장치를 등록한 순으로 정렬합니다.
이름으로 정렬	장치를 이름순으로 정렬합니다.
트리 펼치기 트리 접기	장치 목록을 확장 또는 축소합니다.
기본 정보 변경	사이트 이름이나 설명을 변경합니다.
위로	선택한 장치가 한 칸씩 위로 이동합니다.
아래로	선택한 장치가 한 칸씩 아래로 이동합니다.

이벤트 설정하기

이벤트와 관련된 항목의 설정을 변경하여 이벤트를 효율적으로 관리할 수 있습니다. 또한 지오펜스를 생성하여 해당 영역에 대한 이벤트를 확인할 수 있습니다.

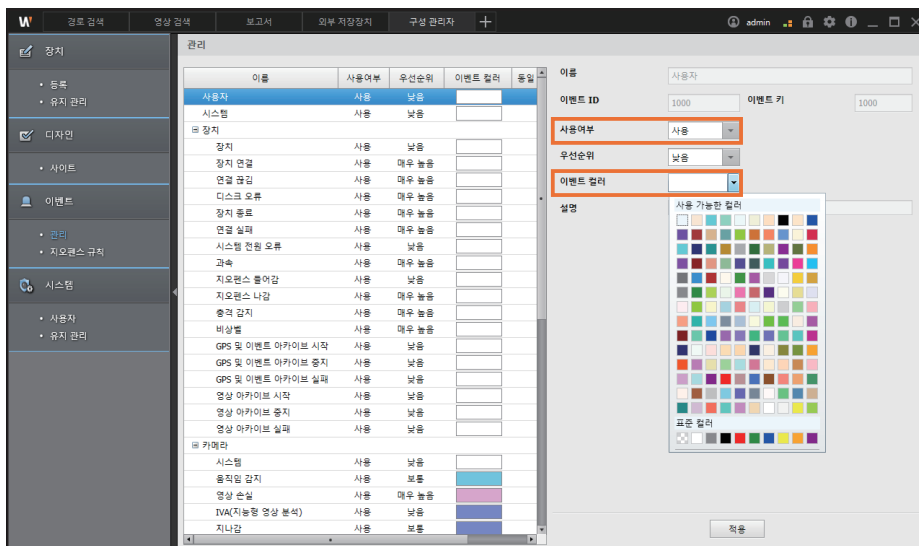
이벤트 관리하기

TMS에서 모니터링할 이벤트 항목과 이벤트별 우선순위를 설정할 수 있습니다. 또한 이벤트가 발생할 때 녹화 화면에 표시할 이벤트 컬러를 지정하거나 특정 이벤트만 수신하도록 이벤트 필터링을 설정할 수도 있습니다.

이벤트 컬러 설정하기

이벤트가 발생할 때 **TMS Console**의 이벤트 로그나 녹화 화면에 표시할 이벤트 컬러를 설정할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **이벤트 > 관리**를 클릭하세요.
3. 이벤트 목록에서 원하는 이벤트를 선택하세요.
4. 이벤트 정보에서 **사용여부**와 **이벤트 컬러**를 설정하세요.

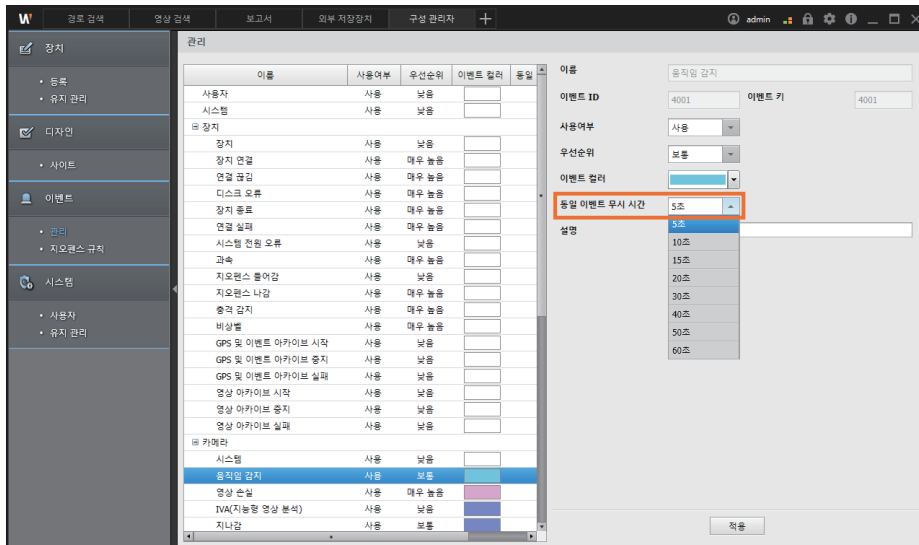


5. 적용 버튼을 클릭하세요.

동일 이벤트 무시 시간 설정하기

이벤트가 발생한 후 설정한 시간 안에 같은 이벤트가 발생하면 추가로 발생한 이벤트를 무시할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **이벤트 > 관리**를 클릭하세요.
3. 이벤트 목록에서 원하는 이벤트를 선택하세요.
4. 이벤트 정보에서 **동일 이벤트 무시 시간**을 설정하세요.



- 동일 이벤트 무시 시간은 카메라 관련 이벤트만 설정 가능합니다.

5. **적용** 버튼을 클릭하세요.

이벤트 용어 알아보기

장치	입력 이벤트명	설명
저장장치	장치	이벤트 > 관리 메뉴에서 장치 이벤트로 관리하지 않는 모든 이벤트를 뜻합니다. (예: 장치 저장 시작, 장치 저장 중지, 장치 업데이트 후 재시작 등)
	장치 연결	모바일 NVR이 연결될 때 이벤트가 발생합니다.
	연결 끊김	모바일 NVR과 연결이 끊어졌을 때 이벤트가 발생합니다.
	디스크 오류	모바일 NVR의 저장소에서 데이터를 읽을 수 없을 때 이벤트가 발생합니다.
	장치 종료	모바일 NVR 시스템이 종료될 때 이벤트가 발생합니다.
	연결 실패	모바일 NVR이 연결되지 않을 때 이벤트가 발생합니다.
	과속	차량의 주행 속도가 모바일 NVR에서 설정한 속도 이상으로 빠를 때 이벤트가 발생합니다.
	지오펜스(들어감)	설정된 지오펜스 영역 안으로 차량이 들어올 때 이벤트가 발생합니다.
	지오펜스(나감)	설정된 지오펜스 영역 밖으로 차량이 나갈 때 이벤트가 발생합니다.
	충격 감지	모바일 NVR에 충격이나 진동이 감지될 때 이벤트가 발생합니다.
	비상벨	모바일 NVR에 연결된 컨트롤 박스의 [EMERGENCY] 버튼을 눌렀을 때 이벤트가 발생합니다.
	GPS 및 이벤트 아카이브 시작	GPS 및 이벤트의 아카이브를 시작할 때 이벤트가 발생합니다.
	GPS 및 이벤트 아카이브 중지	GPS 및 이벤트의 아카이브를 중지하거나 끝났을 때 이벤트가 발생합니다.
	GPS 및 이벤트 아카이브 실패	GPS 및 이벤트의 아카이브를 실패했을 때 이벤트가 발생합니다.
	영상 아카이브 시작	영상 아카이브를 시작할 때 이벤트가 발생합니다.
	영상 아카이브 중지	영상 아카이브를 중지하거나 끝났을 때 이벤트가 발생합니다.
	영상 아카이브 실패	영상 아카이브를 실패했을 때 이벤트가 발생합니다.
	시스템 전원 오류	모바일 NVR 시스템에 전원이 들어오지 않을 때 이벤트가 발생합니다.

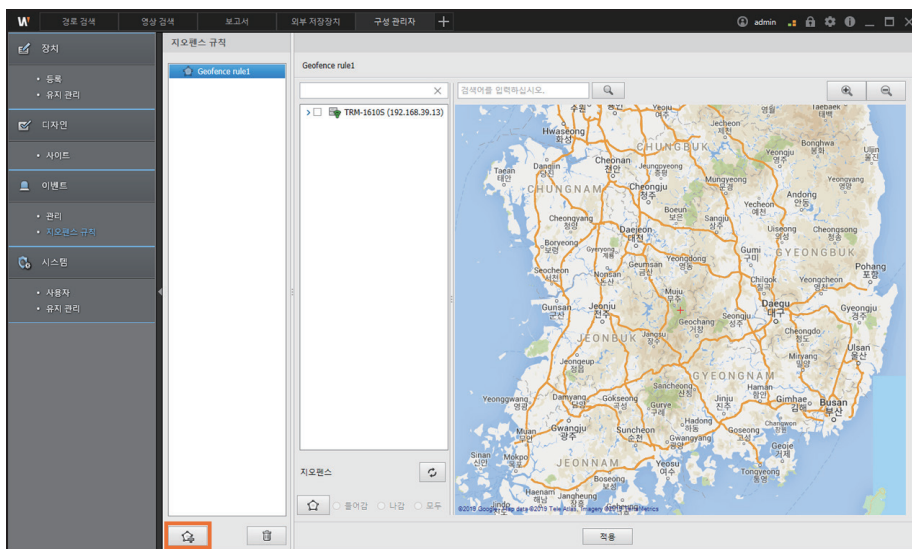
장치	입력 이벤트명	설명
카메라	움직임 감지	카메라에 설정한 관심 영역에서 움직임이 감지되면 이벤트가 발생합니다.
	영상 손실	모바일 NVR에서 카메라 영상을 수신하지 못할 때 이벤트가 발생합니다.
	IVA(지능형 영상 분석)	지능형 영상 분석이 감지되면 이벤트가 발생합니다.
	지나감	카메라에 설정한 가상선을 지나가는 물체가 감지되면 이벤트가 발생합니다.
	들어감	카메라에 설정한 가상 영역 안에 움직이는 물체가 외부에서 내부로 들어오면 이벤트가 발생합니다.
	나감	카메라에 설정한 가상 영역 안에 움직이는 물체가 내부에서 외부로 나가면 이벤트가 발생합니다.
	나타남/사라짐	카메라에 설정한 가상 영역 안에 존재하지 않던 물체가 영역 안에 일정 시간 이상을 머무르거나 영역 안에 있던 물체가 일정 시간 이상 존재하지 않으면 이벤트가 발생합니다.
	탐퍼링 감지	카메라 영상이 가려지거나 카메라의 위치가 변경되면 이벤트가 발생합니다.
	자동 추적	카메라 영상에 움직이는 물체가 자동 추적되면 이벤트가 발생합니다.
	얼굴 감지	카메라 영상에 사람의 얼굴이 감지되면 이벤트가 발생합니다.
	오디오 감지	카메라에 설정한 레벨 이상의 오디오가 감지되면 이벤트가 발생합니다.
	디포커스 감지	카메라 렌즈의 포커스가 흐려지는 것이 감지되면 이벤트가 발생합니다.
	침입	카메라에 설정한 가상 영역 안에 일정 시간동안 움직이는 물체가 감지되면 이벤트가 발생합니다.
	배회	카메라에 설정한 가상 영역 안에 일정 시간동안 배회하는 물체의 움직임이 감지되면 이벤트가 발생합니다.
	안개 감지	카메라에 안개가 끼거나 날씨가 흐린 영상이 감지되면 이벤트가 발생합니다.
	비명	카메라가 사람의 비명이나 고함 소리를 감지할 때 이벤트가 발생합니다.
	총소리	카메라가 연속적으로 나지 않는 총소리를 감지할 때 이벤트가 발생합니다.
	폭발	카메라가 폭발음을 감지할 때 이벤트가 발생합니다.
	유리 깨짐	카메라가 유리 파손음을 감지할 때 이벤트가 발생합니다.

지오펜스 규칙 설정하기

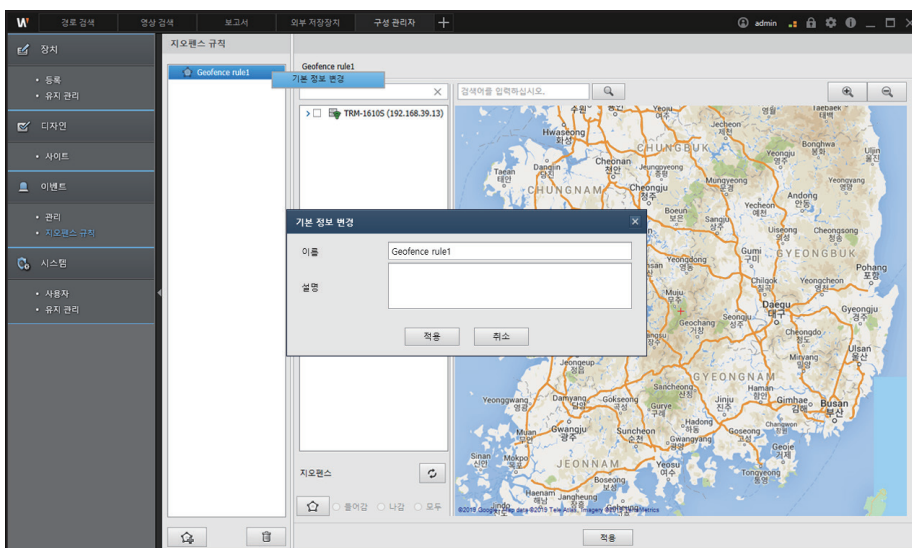
차량이 특정 영역에 침범하거나 이탈할 경우 지오펜스 이벤트가 발생하도록 지오펜스 규칙을 설정할 수 있습니다.

지오펜스 추가하기

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **이벤트 > 지오펜스 규칙**을 클릭하세요.
3. 지오펜스 규칙 페이지 아래의  버튼을 클릭하세요. 지오펜스가 생성됩니다.



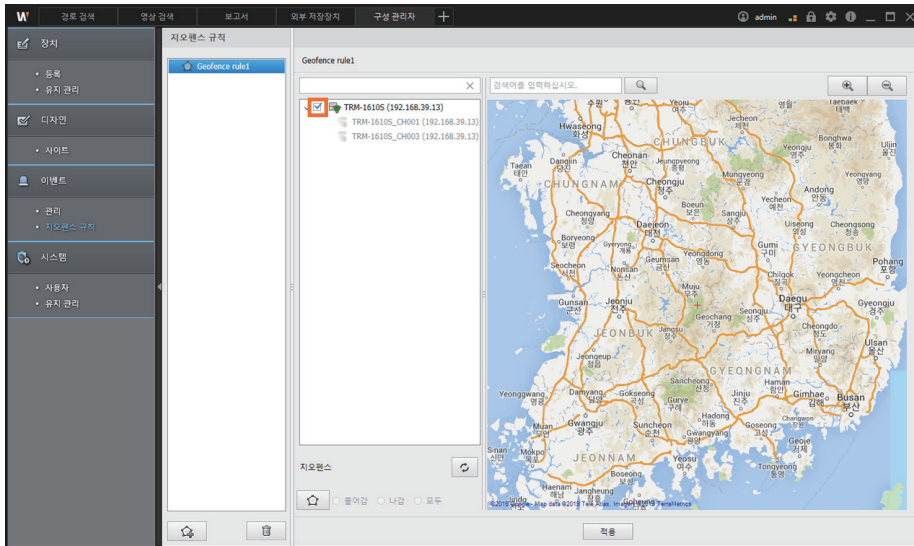
4. 지오펜스 규칙의 기본 정보를 변경하려면 원하는 지오펜스 규칙을 선택한 후 마우스 오른쪽 버튼을 클릭하세요. **기본 정보 변경**을 선택한 후 원하는 정보로 변경하세요.



5. 적용 버튼을 클릭하세요.

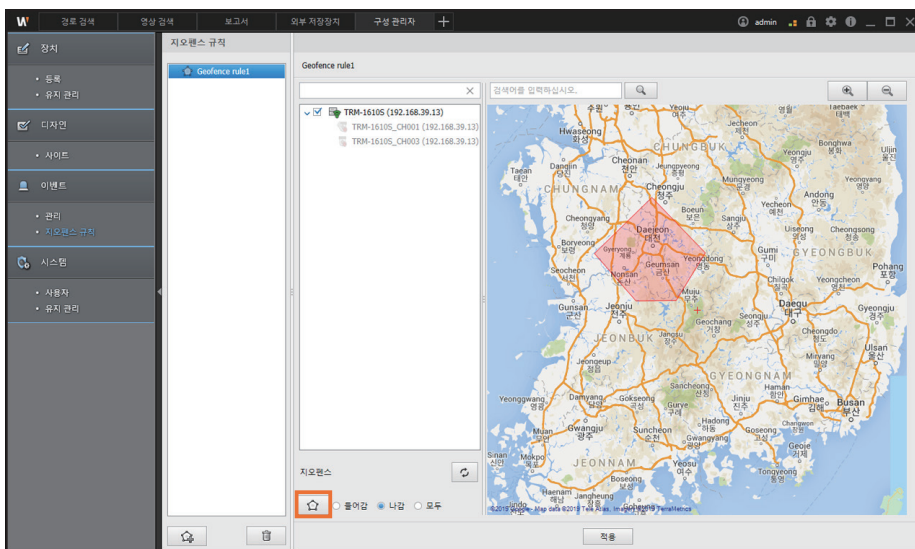
지오펜스 설정하기

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **이벤트 > 지오펜스 규칙**을 클릭하세요.
3. **지오펜스 규칙** 목록에서 원하는 지오펜스 규칙을 선택하세요.
4. 장치 목록에서 지오펜스로 모니터링할 장치의 체크 박스를 선택하세요.



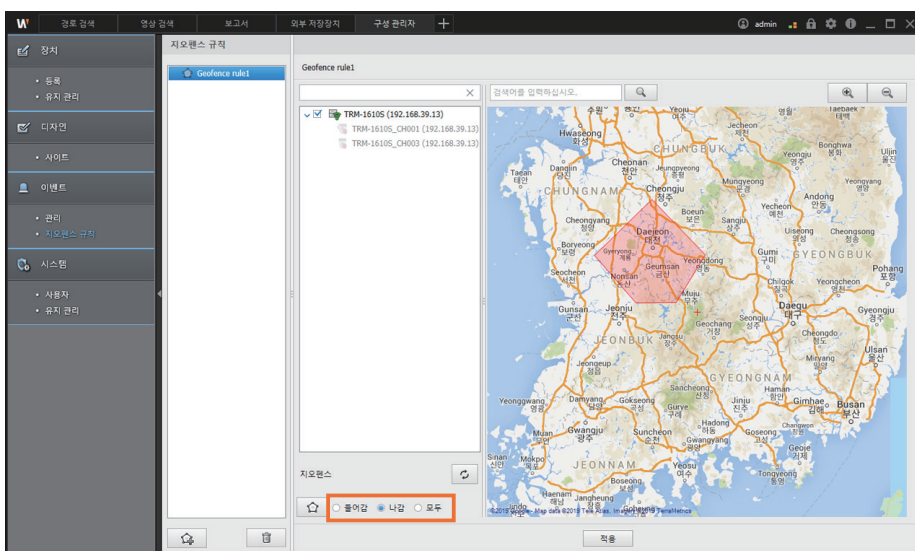
- 검색 창에서 카메라를 검색할 수 있습니다.

5.  버튼을 클릭한 후 원하는 영역을 지도 위에 설정하세요.
 마우스 왼쪽 버튼을 클릭하여 영역을 설정하고, 영역 설정을 완료하려면 마우스 오른쪽 버튼을 클릭하세요.
 지오펜스는 최대 64개의 꼭짓점으로 구성할 수 있습니다.



- 지도 오른쪽 위의  버튼을 클릭하면 지도를 확대 또는 축소할 수 있습니다.
-  버튼을 클릭하면 영역을 재설정할 수 있습니다.

6. 설정한 영역에서 원하는 이벤트 항목을 선택하세요.



- **들어감**: 모바일 NVR이 지오펜스로 들어오면 이벤트가 발생합니다.
- **나감**: 모바일 NVR이 지오펜스를 나가면 이벤트가 발생합니다.
- **모두**: 모바일 NVR이 지오펜스로 들어오거나 나가는 모든 경우에 이벤트가 발생합니다.

7. 적용 버튼을 클릭하세요.

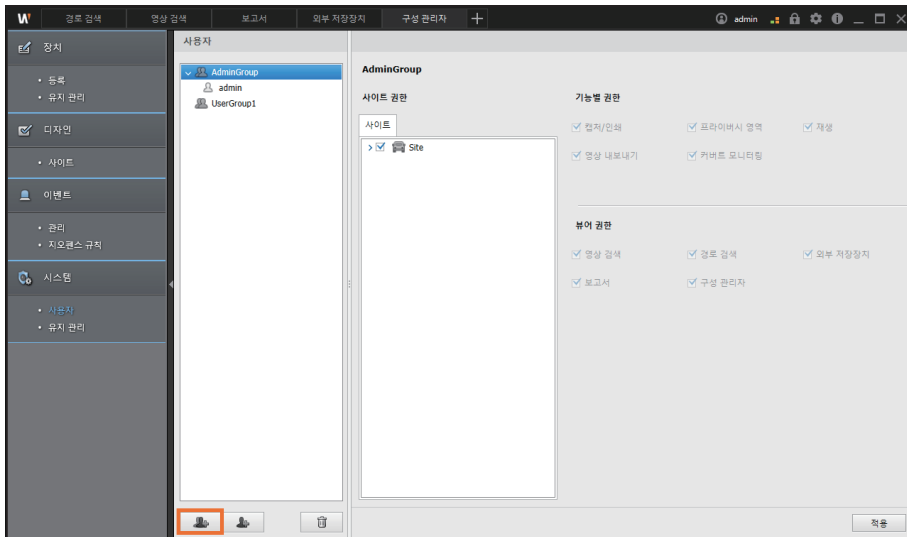
시스템 설정하기

TMS 시스템에 사용자 그룹과 사용자를 추가하거나 사용자 그룹의 권한을 설정할 수 있습니다. 또한 시스템 유지 관리에 필요한 항목의 설정을 변경할 수 있습니다.

사용자 설정하기

사용자 그룹 추가하기

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 시스템 > 사용자를 클릭하세요.
3. 사용자 페이지 아래의  버튼을 클릭하세요. 사용자 그룹이 생성됩니다.



4. 추가된 사용자 그룹을 선택한 후 권한을 설정하세요.
사이트 권한, 기능별 권한, 뷰어 권한을 설정할 수 있습니다.
5. 적용 버튼을 클릭하세요.

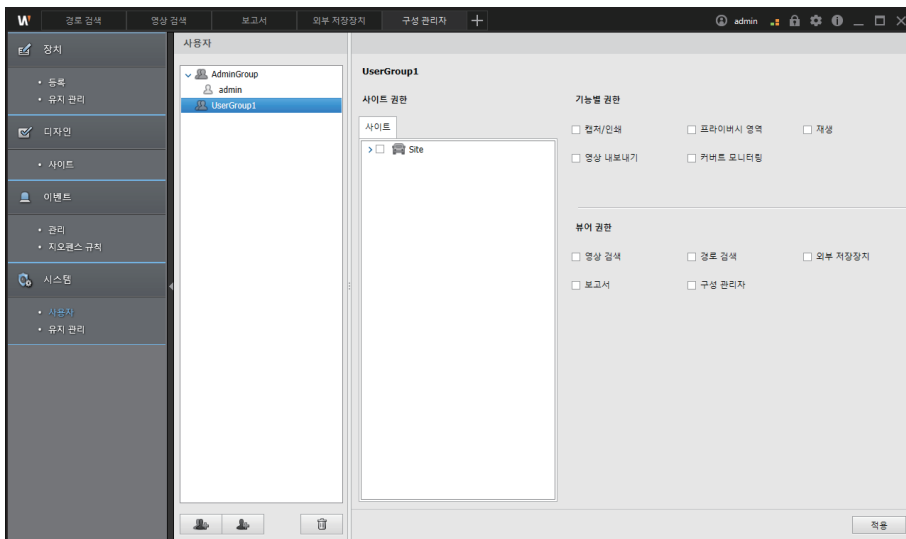


알아두기

AdminGroup은 기본으로 제공되는 사용자 그룹으로 삭제할 수 없습니다.

사용자 그룹 권한 설정하기

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 시스템 > 사용자를 클릭하세요.
3. 권한을 설정할 사용자 그룹을 선택하세요.



4. 사용자 그룹의 권한을 설정하세요. 사이트 권한 및 기능 권한을 선택할 수 있습니다.

- **사이트 권한:** 선택한 사용자 그룹에서 운용할 사이트를 선택할 수 있습니다.
- **기능별 권한:** 선택한 사용자 그룹에서 사용할 기능을 설정할 수 있습니다.



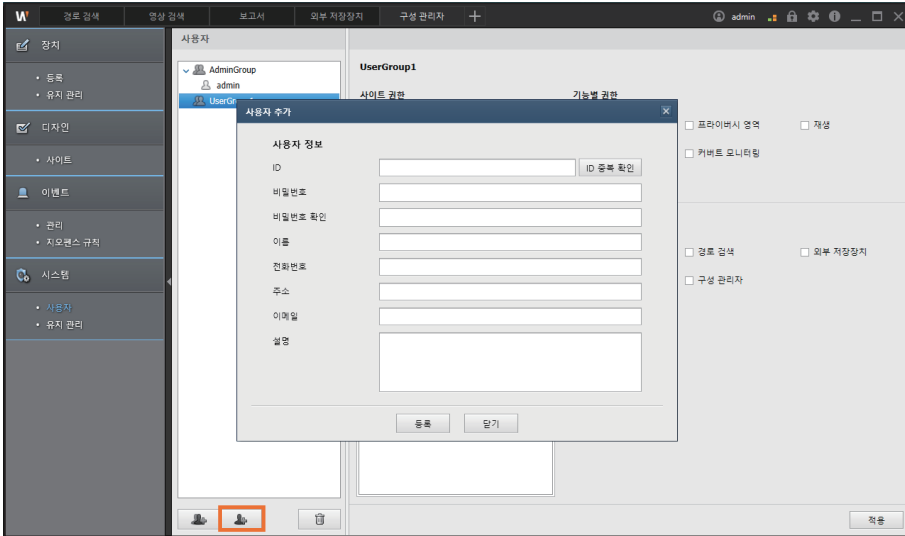
알아두기

- **AdminGroup**은 모든 권한을 가지고 있으므로 **AdminGroup**에 속한 사용자도 모든 권한을 가집니다.
- 권한 설정은 사용자 그룹에서만 가능합니다.
- 사용자 권한은 사용자가 속한 사용자 그룹의 권한에 따라 달라질 수 있습니다.

5. 적용 버튼을 클릭하세요.

사용자 추가하기

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 시스템 > 사용자를 클릭하세요.
3. 사용자를 추가할 사용자 그룹을 선택하세요.
4. 사용자 페이지 아래의  버튼을 클릭하세요.



5. 사용자 정보를 입력하세요.
설정한 ID가 사용 가능한 ID인지 **ID 중복 확인** 버튼을 클릭해서 확인하세요.
6. 등록 버튼을 클릭하세요. 선택한 그룹 아래에 사용자가 추가됩니다.

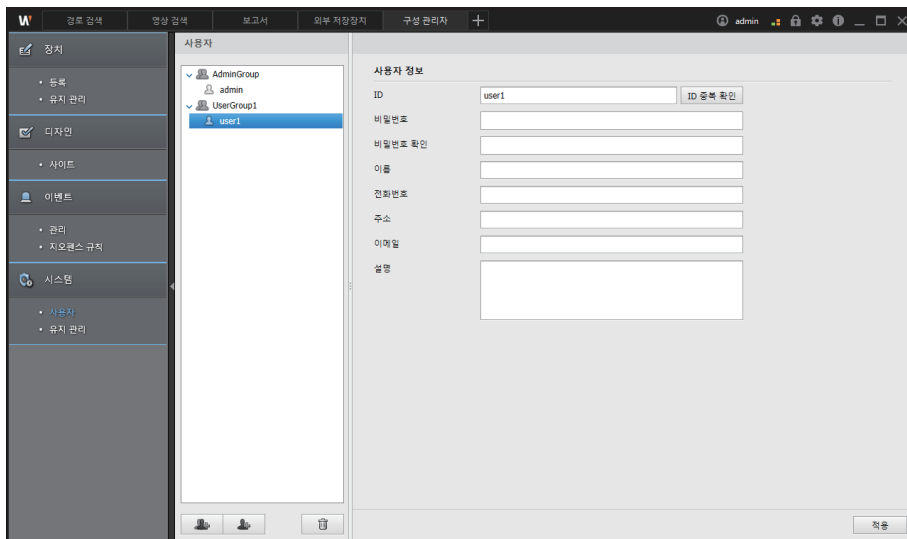


알아두기

Admin ID는 프로그램 설치 시 기본적으로 생성되어 있으며 삭제할 수 없습니다.

사용자 정보 수정하기

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 시스템 > 사용자를 클릭하세요.
3. 원하는 사용자를 선택한 후 사용자 정보를 수정하세요.



4. 적용 버튼을 클릭하세요.

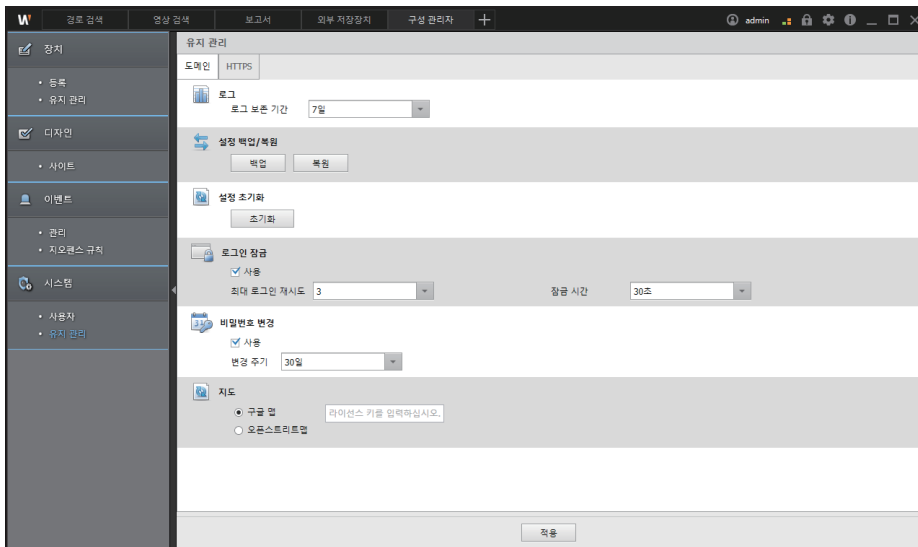
시스템 유지 관리하기

TMS Server의 로그 보존 기간이나 비밀번호 변경 주기를 변경하고, 서버의 시스템 설정을 백업/복원하거나 초기화할 수 있습니다. 경로 검색 등에서 사용하는 지도의 맵 소스를 변경하거나 HTTPS와 같은 보안 접속 방식을 설정할 수 있습니다.

도메인 설정하기

TMS 시스템의 유지 관리에 필요한 항목의 설정을 변경하여 관리할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 시스템 > 유지 관리를 클릭하세요.
3. 원하는 항목을 선택한 후 설정하세요.



- **로그**

일정 기간이 지나면 해당 파일을 자동으로 삭제하도록 **로그 보존 기간**을 설정할 수 있습니다.

- **설정 백업/복원**

현재 **TMS Server**의 시스템 설정을 백업하거나 나중에 백업해둔 시점으로 시스템 설정을 복원할 수 있습니다.

- **백업**: 항목을 선택하면 버튼이 활성화됩니다. 경로를 설정하고 **백업** 버튼을 클릭하면 설정된 경로로 백업을 실행합니다.
- **복원**: 항목을 선택하면 버튼이 활성화됩니다. 경로를 설정하고 **복원** 버튼을 클릭하면 지정된 경로에서 설정을 불러와 복원을 시작합니다.

- **설정 초기화**

TMS Server의 시스템 설정을 최초 설치했던 상태로 초기화할 수 있습니다.

- **로그인 잠금**

로그인 잠금을 실행하도록 설정할 수 있습니다.

- **최대 로그인 재시도**: 일정 횟수 이상 실패하면 로그인을 제한합니다.
- **잠금 시간**: 로그인을 실패하면 일정 시간 동안 로그인을 제한합니다.

- **비밀번호 변경**

- 비밀번호를 주기적으로 변경할 수 있도록 비밀번호 변경 알림을 설정할 수 있습니다.
- 보안을 위해 비밀번호는 3개월 주기로 변경하세요.

- **지도**

TMS Console에서 표시하는 지도를 구글 맵이나 오픈스트리트맵으로 선택할 수 있습니다.

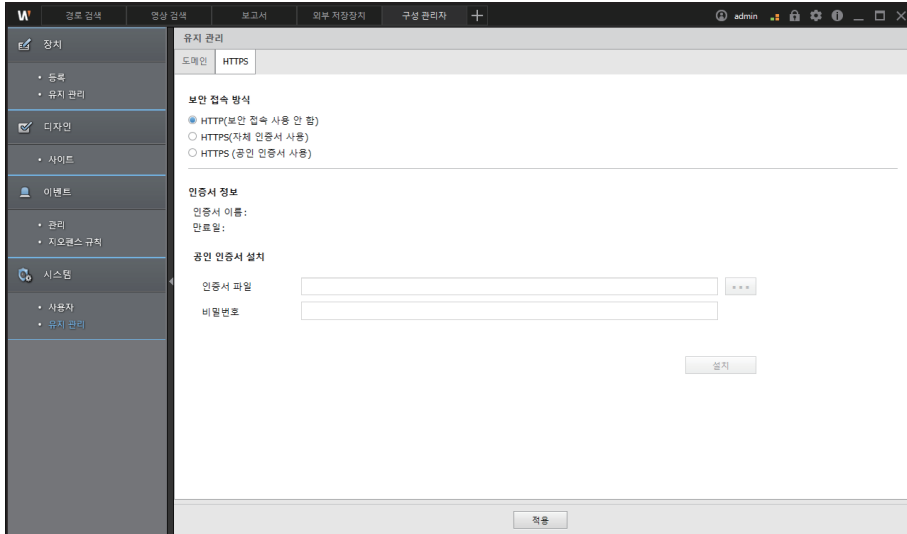
- **구글 맵**: 구글에서 제공하는 유료 지도 서비스로 구글 맵 API 키를 입력해야 사용할 수 있습니다.
- **오픈스트리트맵**: 오픈 소스 지도 서비스로 별도의 API 키없이 자유롭게 사용할 수 있습니다.

4. 적용 버튼을 클릭하세요.

HTTPS 설정하기

TMS 시스템의 보안 접속 방식을 설정할 수 있습니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 **시스템 > 유지 관리**를 클릭하세요.
3. 유지 관리 페이지에서 **HTTPS** 탭을 클릭하세요.

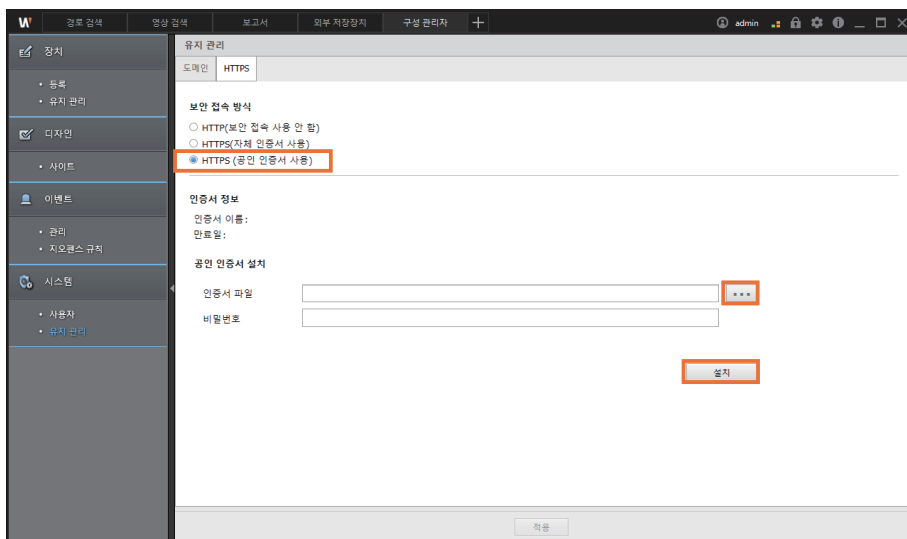


4. 보안 접속 방식을 다음 중에서 선택하세요.
 - HTTP(보안 접속 사용 안 함): 암호화하지 않고 데이터를 전송할 때 선택하세요.
 - HTTPS(자체 인증서 사용): TMS가 제공하는 자체 인증서를 사용하여 보안 접속을 할 때 선택하세요.
 - HTTPS(공인 인증서 사용): 공인 인증서를 사용하여 보안 접속을 할 때 선택하세요.
5. 적용 버튼을 클릭하세요.

공인 인증서 설치하기

보안 접속 방식을 HTTPS(공인 인증서 사용)으로 선택한 경우 공인 인증서를 설치해야 합니다.

1. 구성 관리자 메뉴 페이지를 여세요.
2. 메뉴 목록에서 시스템 > 유지 관리를 클릭하세요.
3. 유지 관리 페이지에서 HTTPS 탭을 클릭하세요.
4. 보안 접속 방식을 HTTPS(공인 인증서 사용)으로 선택하세요.



5. 인증서 파일 오른쪽에 있는 [...] 버튼을 클릭하여 설치할 공인 인증서 파일을 선택하세요.
6. 인증서 비밀번호를 입력한 후 설치 버튼을 클릭하세요.
7. 적용 버튼을 클릭하세요.

부록

시스템 요구 사항

TMS Console

	최소 사양	권장 사양
CPU	Intel i5-4670@3.40 GHz	Intel i7-4770@3.40 GHz Xeon E3-1275 v5 (8 M Cache 3.6 GHz)
VGA	Geforce GTX 740 (RAM 1 GB) 6세대 인텔 프로세서 그래픽	• CUDA H/W 디코더 사용 시 Geforce GTX 960 (RAM 2 GB) 이상 • Intel Quick Sync H/W 디코더 사용 시 HD Graphics P530 이상
RAM	8 GB 이상	16 GB 이상
OS	Windows 7/8/8.1/10 (64비트) * 64비트 운영 체제만 지원합니다.	Windows 10 (64비트) * 64비트 운영 체제만 지원합니다.
HDD	운영 체제와 TMS Console 설치 후 20 GB 여유 공간 필요	

제품 사양

시스템		
장치 관리	서버 1대당 최대 128개 장치 등록 도메인에 최대 10,000개 카메라 운영	
아카이브 대역폭	최대 520Mbps	
소프트웨어 구조	서버/클라이언트	다중 서버 클러스터링, 최대 28개 서버
클라이언트	콘솔 클라이언트	서버당 최대 35개의 동시 접속 지원
지원 장치	와이즈넷 모바일 NVR	
기본 컴포넌트		
TMS Server	서버 클러스터링	서버 데이터 공유
	사용자 관리	장치 접속 권한, 기능 접근 권한
	중앙 장치 설정	장치와 추가 TMS Server의 자동/수동 등록
	이벤트 설정	4단계 중요도 설정, 이벤트별 컬러 관리
TMS Console	탭 기반 윈도우	경로 검색, 영상 검색, 보고서, 외부 저장장치, 구성 관리자
	출력 채널	하나의 탭 최대 64채널
	디코딩	하드웨어 가속기 지원 (CUDA, 인텔 퀵 싱크)
	재생	다중 채널 재생
지원 언어	한국어, 영어, 크로아티아어, 체코어, 덴마크어, 네덜란드어, 핀란드어, 프랑스어, 독일어, 그리스어, 헝가리어, 이탈리아어, 노르웨이어, 폴란드어, 포르투갈어, 루마니아어, 러시아어, 세르비아어, 스페인어, 스웨덴어, 대만어, 태국어, 터키어	

서비스 포트

Wisenet TMS에서 사용하는 포트 목록을 참고하세요.

이름	포트	프로토콜
System Manager	9999, 61616, 9876 (PostgreSQL)	TCP for Web Service (9999) Active MQ (61616)
Media Server	4510-4517	TCP (4510, 4511) SSL (4512, 4513) RTSP (4515, 4516, 4517)

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- 본 제품은 감시 보조장치로 도난(재산피해), 화재, 천재지변 등으로 인해 발생한 물적/인적 피해에 대해서는 제조사에서 책임지지 않습니다.
- A/S는 당사 해당 제품(단품)에 대해서만 가능합니다.
설치문제로 인한 불량은 설치 전문 업체 및 유지 보수업체를 통해 처리하셔야 합니다.
- 제품 사용 설명서에 포함되지 않는 기능이나, 타사 쇼핑몰 등에서 잘못 기재된 기능은 당사에서 책임을 질 수 없습니다.
- 서비스 요청시 제품에 저장된 중요한 데이터는 서비스를 받는 동안 손실될 수 있으므로, 반드시 백업을 받아 두시기 바랍니다. 수리과정에서 손실될 경우 당사에서 책임을 질 수 없습니다.

[2] 제품 사용설명서로 서비스 요청한 경우

- 사용환경에 따른 신호 점검, 전원 점검, 네트워크 환경 문제 등의 서비스 요청시
- 제품과 관련된 타기기의 설치, 설명 요청시

[3] 단순 분해조립, 간단조정, S/W 업그레이드 등으로 서비스 요청한 경우

- 제품 안에 이물이 투입되어 문제가 발생하여 서비스를 요청시
- 제품 간단조정이나 분해하지 않고 처리하는 경우
- 제품고장 요인이 아닌 S/W 업그레이드 요청시

[4] 그 밖의 경우

- 제품에서 사용되는 소모품(기록매체 등)의 관리 소홀로 인한 고장이나 사용설명 서비스 요청시
(소모품 문제에 대한 사용설명 및 서비스 요청은 해당업체에 문의하여 주십시오)
- 품질이 좋지 않은 기록매체 사용에 따른 고장이나 사용설명 서비스 요청시
- 제품이 비정상적인 환경에서 사용하거나 설치되어 문제가 발생한 경우

※ 상기와 같은 유형의 서비스를 받으실 경우에는 소정의 수수료가 부과될 수 있으므로,
서비스 신청전 전문상담원 (☎1588-5772)을 통하여 보다 양질의 서비스를 받으시길 권장
드립니다.



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