Safectory Track Certified Configuration Guide for Extreme Networks Access Points

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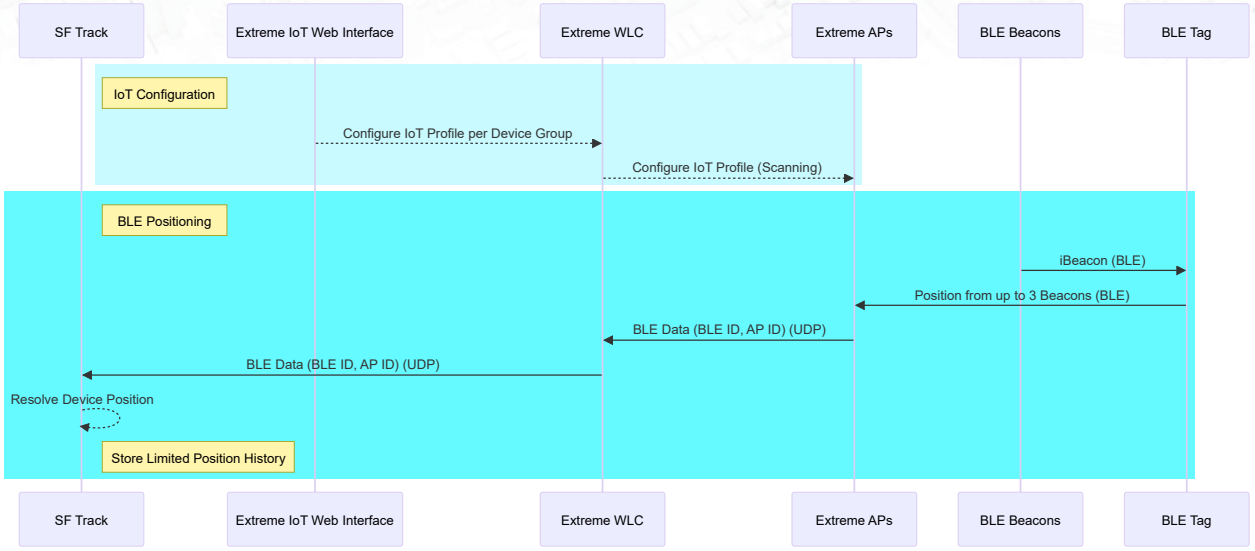
Revision History

Version	Date	Description
0.1	01/2025	Initial version

Introduction

To set up an IoT telemetry profile for Extreme Networks access points to be used with safectory products (asset tags, beacons, mobile SDK, Track backend), use the following manual.
The access points will be configured to forward data created between tags and beacons to the server backend, a service called "safectory Track".



Note:

- Only one scanning or one beaconing profile can be active at once; thus, simultaneous scanning and beaconing is not possible.
- This guide assumes that the access points to be used already have an established setup of sites and device groups.
- As communication between the WLC and the backend occurs via unencrypted UDP messages, administrators are expected to implement adequate security measures to safeguard this traffic from unauthorized third parties.

Certified Product and Software Summary

- Certified products
  - all BLE-enabled access points (e.g., AP305C-WR)
- Certified software
  - Extreme Networks software versions approved (WLC): ExtremeCloud IQ Controller 10.09.01.0037

- Extreme Networks software versions approved (AP): 10.9.1.0-038R
- ExtremeCloud IQ Controller needs to support IoT profile setting **Generic BLE Scan**
- SF backend versions approved: 1.27.+

Configuring Clock/NTP Services

Time synchronization is an essential part of managing beacons and tracking asset in your network, so make sure that all the nodes are synchronized with the same reference server and time.

IoT Telemetry Setup for Track Service

Configure Track Backend

The Extreme Networks WLC will send data via UDP to the backend.
The port can be freely chosen within the regular port range.
The default port configured in the backend is `6978`.

- [ ] Ensure no **firewall rule** is blocking the UDP port
- [ ] Enable the Extreme Networks **backend module** and configure your desired **UDP port** in the backend configuration (`custom.xml`):

```
<entry key="gateway.extremeNetworks.enable">true</entry>
<entry key="gateway.extremeNetworks.udp.port">6978</entry>
```

- [ ] Ensure a **Track user** exists in a **group with appropriate permissions** for device/beacon writes to the desired tags and beacons (`credentials.xml`); set this user's email address with the following backend config option:

```
<entry key="gateway.extremeNetworks.trackUserEmail">## TRACKUI_USER ##</entry>
```

Configure IoT Profile

To send BLE data received by the Extreme Networks AP to the Track server, you need to configure an IoT profile with the "Generic Scan" application (also see official documentation).

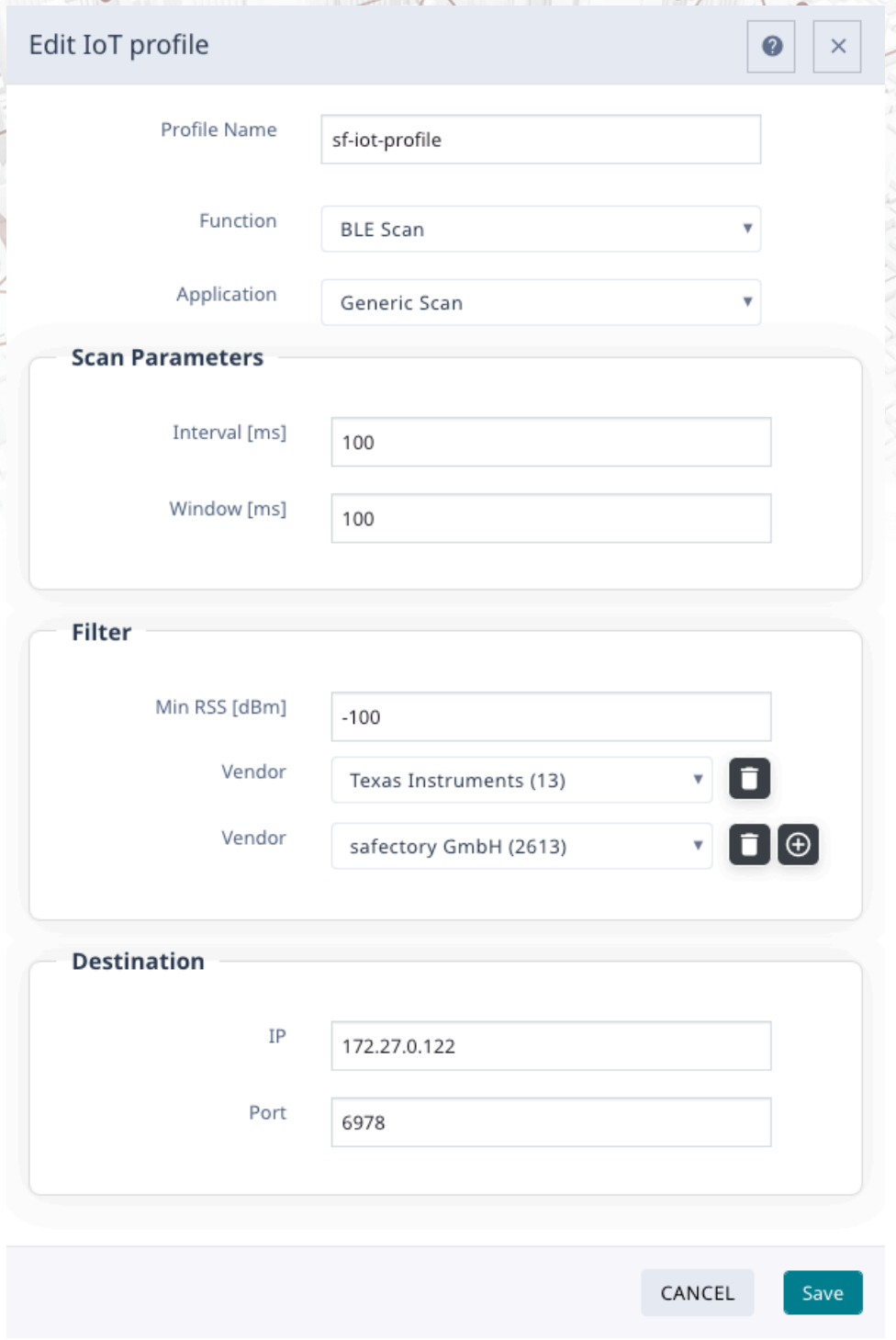
For the configuration of the IoT profile, it is mandatory to use the IP address of the Track instance.
In the example below, we are using `172.27.0.122`, please adjust accordingly.

An IoT profile for scanning can be configured **per device group** as follows via WLC frontend:

- [ ] In the frontend, navigate as follows:
  - Go to **Sites**
  - Select specific site
  - Configure site (gear symbol at the top)
  - Select specific device group, which should open the **Edit Device Group" dialog

- [ ] Either edit the default **Profile** (e.g., named `AP305C-default`) or create a new one (**Plus** button), then hit the **Edit** button
- [ ] Switch to tab **IOT** and create a new **IoT Profile** (**Plus** button)
- [ ] Fill following settings
  - [ ] **Profile Name**: can be freely chosen
  - [ ] **Function**: `BLE Scan`
  - [ ] **Application**: `Generic Scan`
  - [ ] **Scan Parameters**:
    - [ ] **Interval [ms]**: 100
    - [ ] **Window [ms]**: 100
  - [ ] **Min RSS [dBm]**: -100
  - [ ] **Vendor**:
    - [ ] Choose **Custom** and enter:
      - [ ] **Name**: `safectory GmbH`
      - [ ] **Company Id**: `2613`
    - [ ] Hit **Plus** button to get a second name-id pair, and enter:
      - [ ] **Name**: `Texas Instruments`
      - [ ] **Company Id**: `13`
  - [ ] **Destination**:
    - [ ] **IP**: enter Track instance's IP address
    - [ ] **Port**: enter specified port in Track config (cf. Configure Track Backend)
  - [ ] Hit **Save** button
- [ ] Hit **Save** button in **Edit Profile** dialog

Example configuration:


Edit IoT profile
Profile Name
sf-iot-profile
Function
BLE Scan
Application
Generic Scan
Scan Parameters
Interval [ms]
100
Window [ms]
100
Filter
Min RSS [dBm]
-100
Vendor
Texas Instruments (13)
Vendor
safectory GmbH (2613)
Destination
IP
172.27.0.122
Port
6978
CANCEL
Save