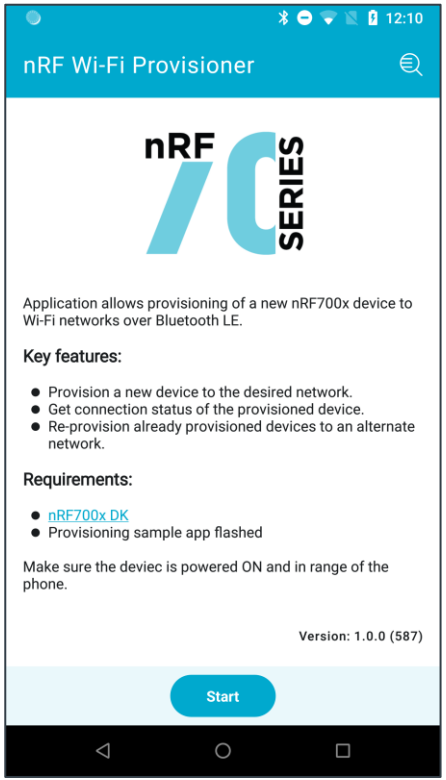
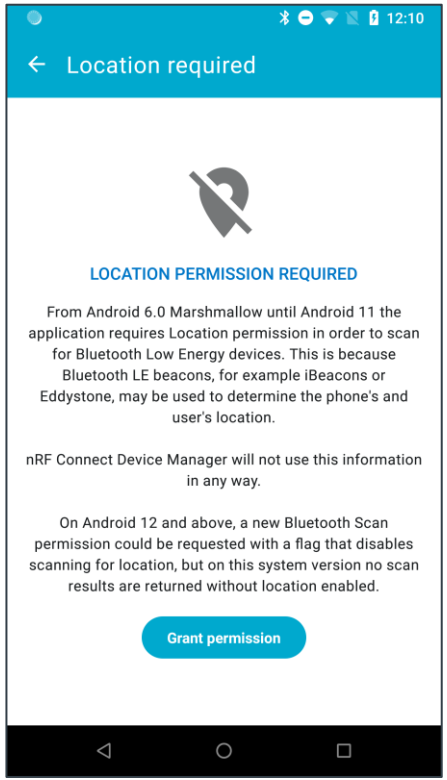
Wi-Fi Provisioning via Bluetooth LE



The provisioning App (Provisioner) works with Nordic nRF700x Wi-Fi devices (Device) and helps them to connect to the desired Network selected from this App via Bluetooth LE. The basic operation is as described below –

1. Device advertises its presence and a unique UUID via BLE adv channels
2. Provisioner scans for this UUID and pairs with the device and establishes a LE Secure channel
3. Provisioner asks the device to scan its surroundings for Wi-Fi Access-Points/Routers and send the results.
4. Provisioner selects the Wi-Fi network and sends the provisioning data for that network to the device which then uses that data and connects to that network
5. Provisioner can un-provision a device in order to move it to a different network
6. Provisioner can get status of already provisioned devices

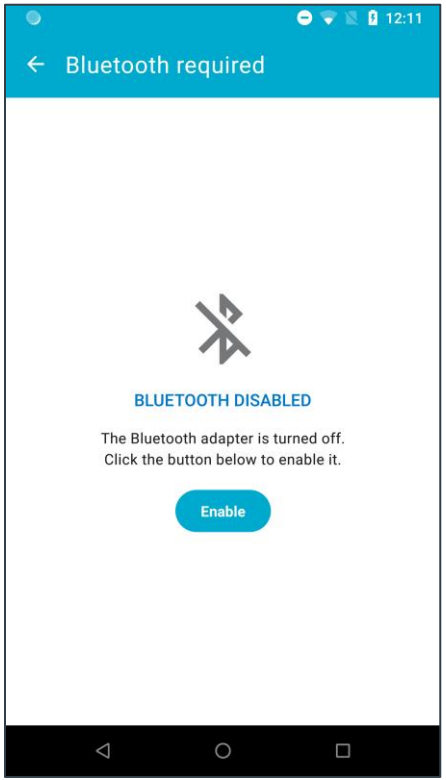
Permissions please...



This screen needs the user to grant the required permissions on the provisioning Andriod device.

- Click on Grant permission to proceed to the next screen
- Click on ← to go back to the main screen

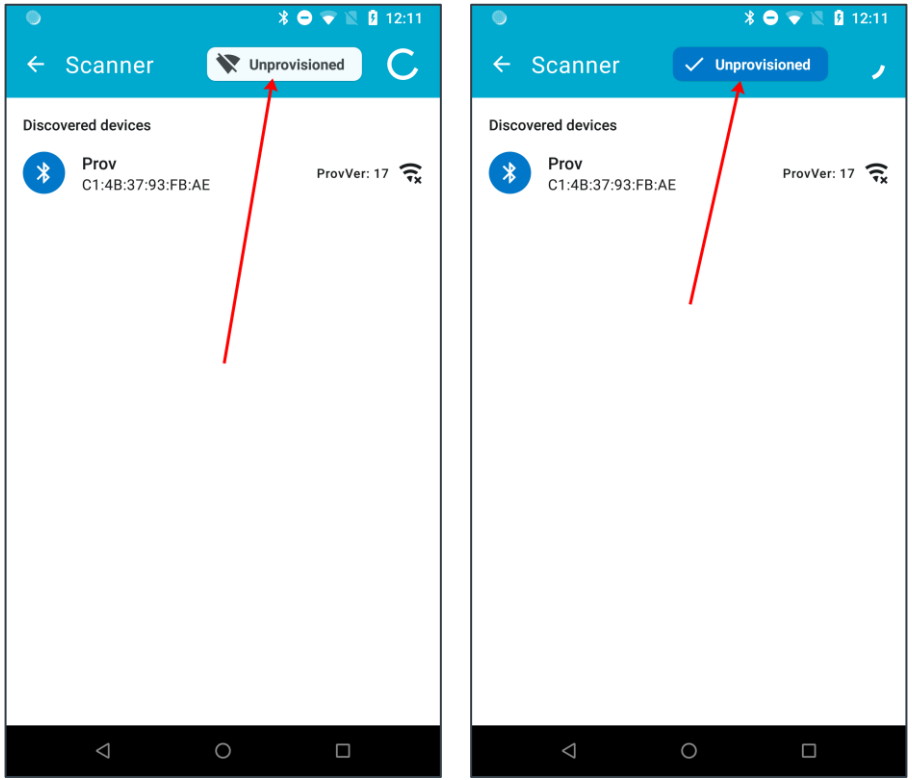
Hmm... Bluetooth turned ON?



If you end up on this screen, you have not turned ON your Bluetooth adaptor.

Please turn it ON and proceed to the next screen

BLE Scan of Devices



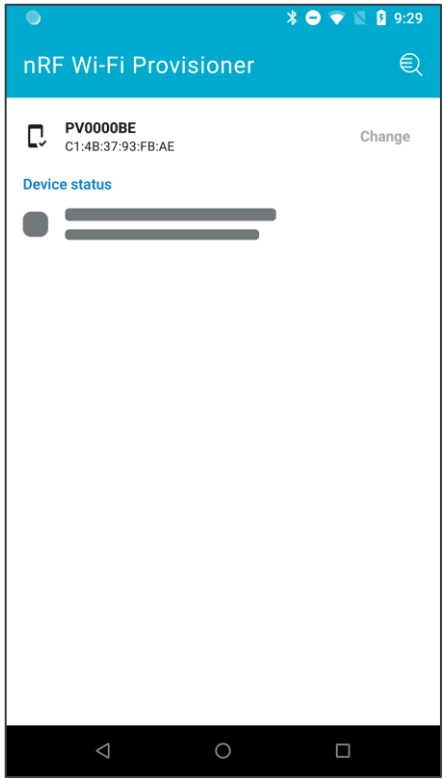
Once here, the App starts scanning for Nordic Wi-Fi devices. It scans and displays all provisioned and un-provisioned devices here with a filter 

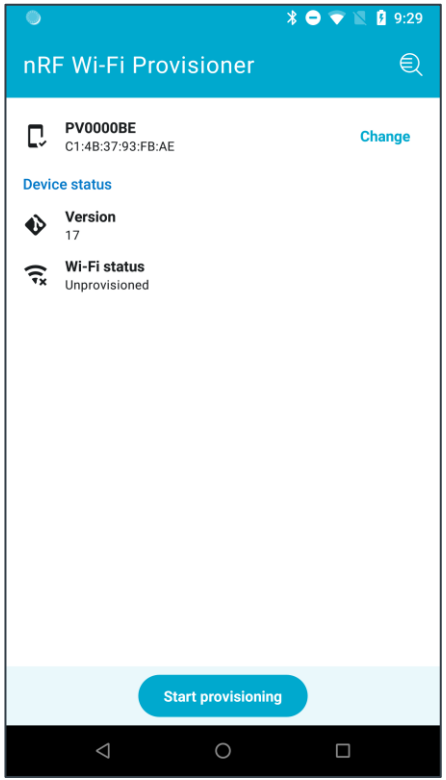
to allow seeing only un-provisioned devices.

- Each device displays information on provisioning software version and status (un-provisioned or provisioned with RSSI)
- Click on the device 

to proceed to provisioning (or on a provisioned device for more information)

Selected Device details





Once we select the Wi-Fi device to be provisioned, you come to this screen

Here we have selected PV0000BE C1:4B:37:93:FB:AE as our device to be provisioned and the device status will be displayed.

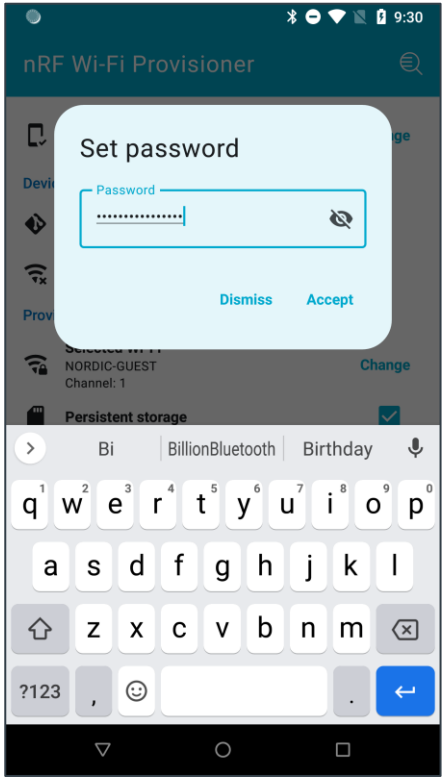
- Click Start provisioning to start provisioning this device. This will request the un-provisioned Wi-Fi device to do a scan and send the details of all AccessPoints/Routers it can scan and send back those results to the App.
- If you have accidently selected another device, you can select Change icon to go back and select the right one.

Device Scan results display & selection

The scan results received from the un-provisioned Wi-Fi device are displayed here.

- From this list, select the Access Point that you need the Wi-Fi device to be provisioned to.
- If there are multiple Access Points with the same SSID and different channels, please select the channel on which you want the provisioning to be done via 

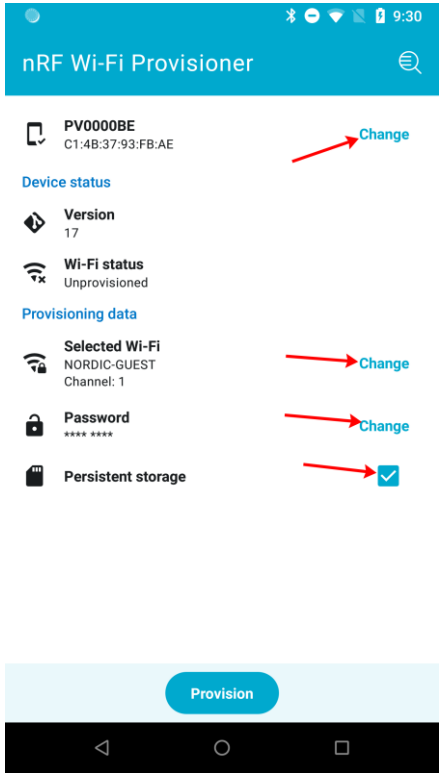
Password please.....



Once you Click on the selected SSID, a Password window pops up where you punch in the password of that Access-Point and click Accept.

- Note, if the Access-Point is in Open security mode (no password), then we proceed to provisioning directly without prompting the user for a password.

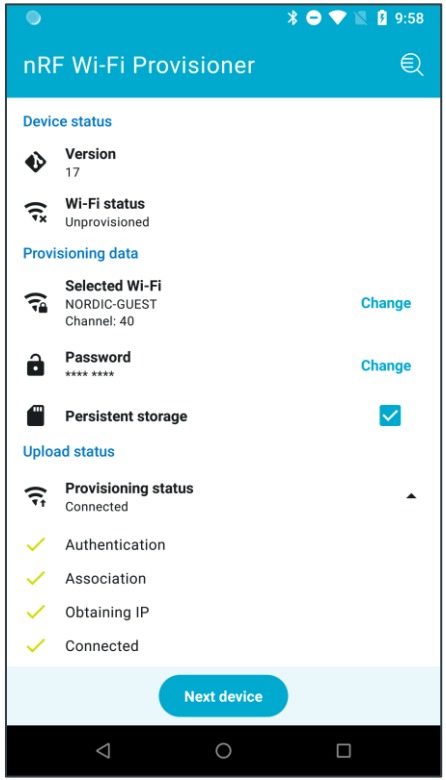
All set, review & GO....

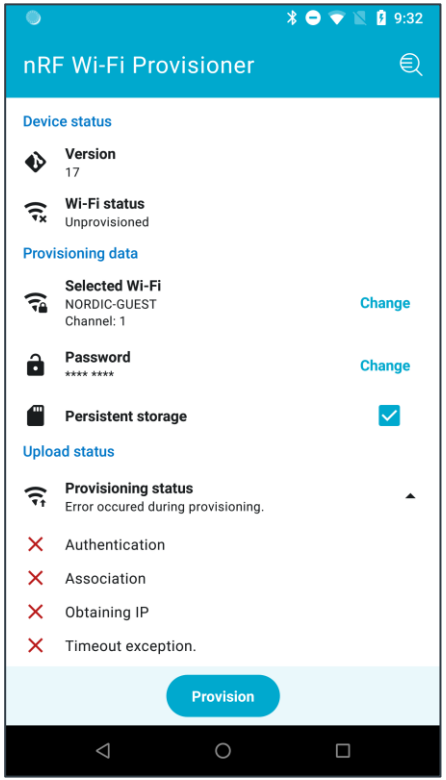


This screen gives you the final configuration to be reviewed before triggering provisioning. You have options to change –

1. Device for provisioning
2. Different channel with the selected SSID
3. Password of the selected Access-Point
4. Where the provisioning data is stored on the Wi-Fi device – Flash (default) or RAM when ☑ is un-checked.

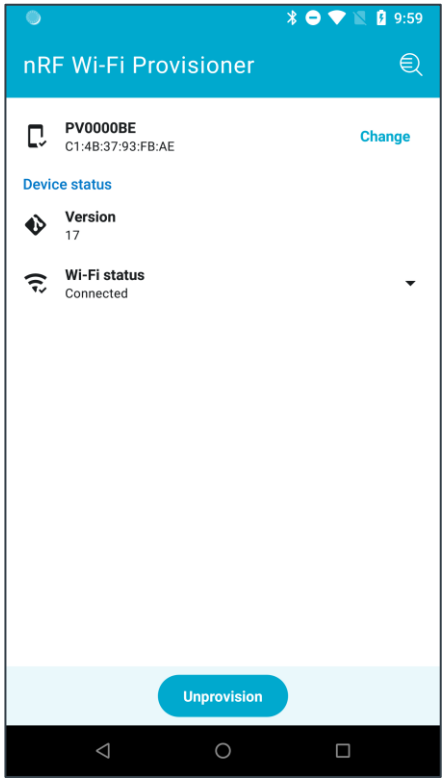
All Done ??

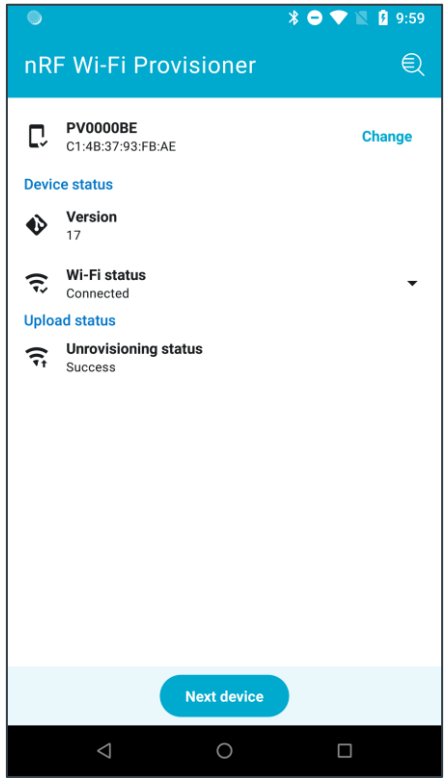




- A successful provisioning is shown in the first screen. After this, you can proceed to provisioning another device
- The second screen shows an un-successful provisioning. You can try change the parameters and re-try provisioning by selecting the Provision button

Done! But, I want to change device to another network...





- If you re-start, you should now see the device as connected
- If you want to re-provision this device, click the Unprovision icon. Once done, you notice that un-provisioning is successful. This device will now be treated as un-provisioned device and can be provisioned as earlier.