

NILE

Bluetooth Low Energy 5.4

BLE UART

1 Overview

The UART App Note uses the Nordic UART Service (NUS) that emulates a serial port over BLE. In addition, the example demonstrates how to use a proprietary (vendor-specific) service and characteristics with the Soft Device.

2 Hardware Requirements

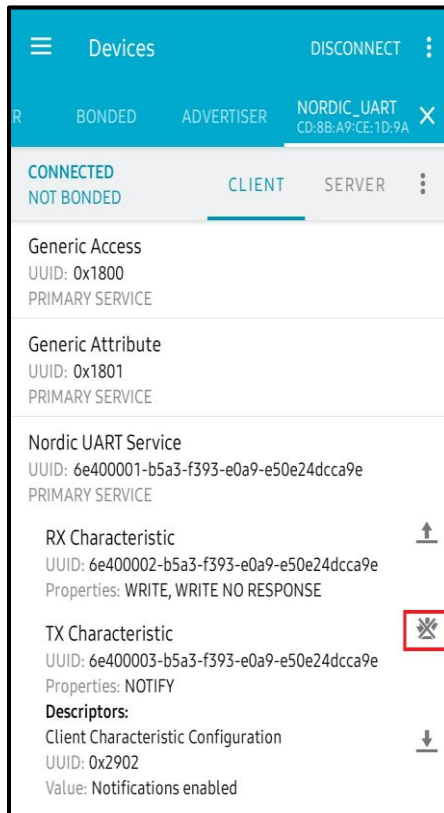
- NILE DVK
- Micro USB Cable
- PC/Laptop with latest SEGGER Embedded Studio with nRF5 SDK

3 Software Requirements

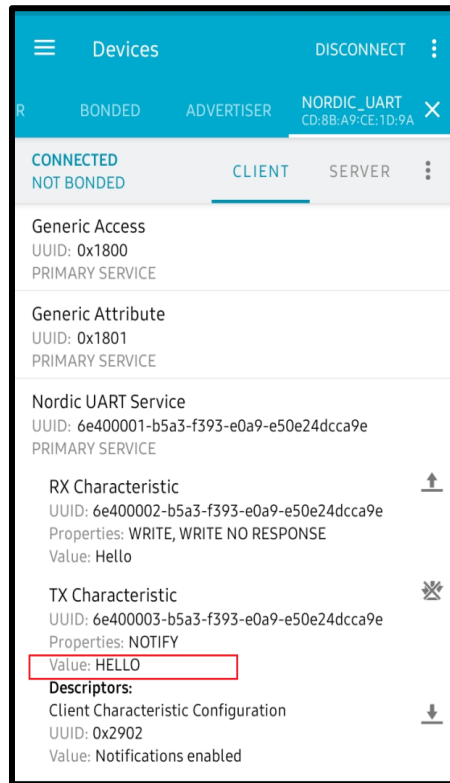
- SEGGER Embedded Studio IDE. Click on the below link to download the IDE, [SEGGER Embedded Studio](#) and extract the downloaded file.
- NRF5 SDK. Click on the below link to download the latest SDK, [nRF5 SDK](#) and extract the downloaded file.
- Install nRF Connect APP in the mobile from App Store/Google Play store

4 Procedure

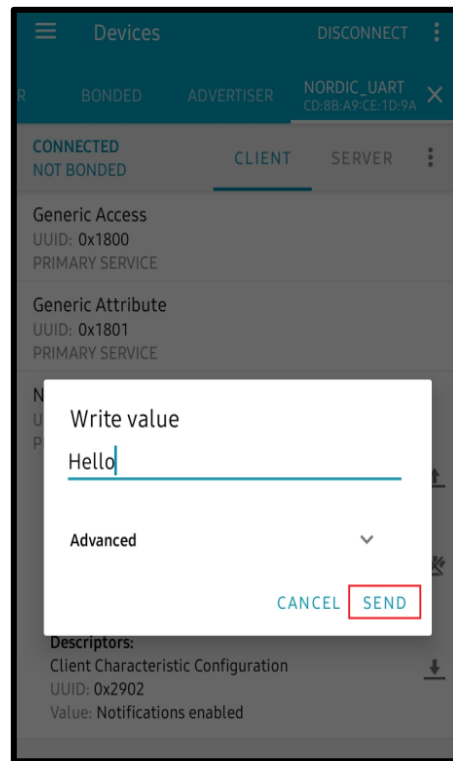
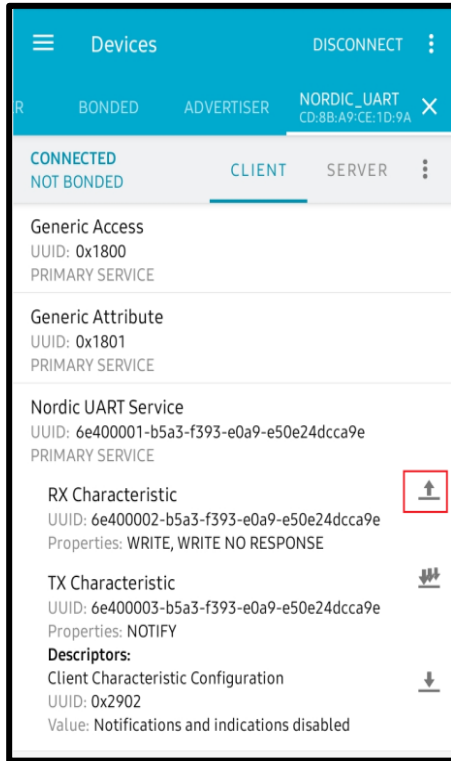
- Connect the NILE DVK to the PC or Laptop with the micro USB cable(J2)
- Power ON the DVK by toggling the power switch (SW8) and observe that LED5 is ON
- Open nRF5 SDK->Examples->BLE Peripheral->ble_app_uart->pca10056->s140->SES-> open Embedded Project file(.EM PROJECT FILE).
- Compile and run the application. Observe that LED1 is blinking on DVK. This indicates that the application is advertising
- Open the nRF Connect app in the mobile.
- Tap on SCAN and check for the device is advertising as “Nordic_UART”. Tap on connect.
- Observe that LED1 is turned ON. This indicates that connection is established.
- Click on the Nordic UART Service and enable the notification by clicking the three down arrows.



- Open the device manager and check for the COM port.
- Open the serial terminal like PuTTY and connect to the COM port and do the required setting
 - Baud rate: 115200
 - 8 data bits
 - 1 stop bit
 - No parity
 - HW flow control: None
- Write the data on the serial terminal (PuTTY) and press enter to send the data, observe the same data on the Tx Characteristics of Nordic UART Service.



- Tap on the up arrow beside the Rx characteristics to write data and tap on send.



- Observe the data in the terminal(PuTTY)

