



Please note that Cypress is an Infineon Technologies Company.

The document following this cover page is marked as “Cypress” document as this is the company that originally developed the product. Please note that Infineon will continue to offer the product to new and existing customers as part of the Infineon product portfolio.

Continuity of document content

The fact that Infineon offers the following product as part of the Infineon product portfolio does not lead to any changes to this document. Future revisions will occur when appropriate, and any changes will be set out on the document history page.

Continuity of ordering part numbers

Infineon continues to support existing part numbers. Please continue to use the ordering part numbers listed in the datasheet for ordering.

www.infineon.com



Type: REL-NOTES

Project: WICED Studio

Date: 08/26/2019

Revision: 6.6

Pages: 9

WICED Studio Release Notes

Release Versions: Wiced_006.006.000.00xx

Cypress Semiconductor
198 Champion Court
San Jose, CA 95134 USA

© 2019 by Cypress Semiconductor
All rights reserved

Confidential and Proprietary Information: This document and the software are proprietary properties of Cypress Semiconductor. This software package may only be used in accordance with the Cypress Semiconductor license agreement.

Table of Contents

TABLE OF CONTENTS	4
1 OVERVIEW	5
1.1 SCOPE	5
1.2 INTRODUCTION	5
2 NEW FEATURES	6
2.1 DOCUMENTATION	6
2.2 FEATURES	6
3 API CHANGES (43XX WI-FI)	7
3.1 WI-FI/BT FIRMWARE UPDATES	8
4 KNOWN ISSUES	9

1 Overview

1.1 Scope

This document lists the new features, bug fixes and known limitations of WICED Studio 6.6 SDK software release.

1.2 Introduction

WICED Studio 6.6 is the SDK for the Internet of Things (IoT) that combines Wi-Fi and Bluetooth into a single integrated development environment.

In addition to providing WICED APIs and an application framework designed to abstract complexity, WICED Studio 6.6 also leverages many common industry standards.

Benefits/Features:

1. Runs on Windows®, Mac® OS X®, and Linux® through Eclipse®-based integrated development environment (IDE)
 - Note that WICED Studio, the Eclipse IDE, has not been updated from the WICED 6.4 release, only the SDK has changed in 6.6
2. Single installer package with support for:
 - Wi-Fi + Bluetooth combo solution
 - Wi-Fi solutions
 - Bluetooth (Basic Rate, Enhanced Data Rate and Bluetooth Low Energy)
- Sample applications for many popular use cases like
 - Connecting to cloud services
 - Audio-over-Bluetooth/Wi-Fi
 - Low-power BLE-based sensors and beacons
 - Smart home gateways
- Code snippets to understand WICED APIs
- Applications for manufacturing and certification
- Support for Bluetooth SoC devices has been deprecated in favor of the *ModusToolbox BT SDK*, which is now the preferred tool and software solution for new designs.
 - Support for Bluetooth applications on Wi-Fi + Bluetooth combo devices remains supported in WICED 6.6

2 New Features

The new features in WICED Studio 6.6 are documented below.

2.1 Documentation

1. Release Notes (this document)

2.2 Features

2.2.1 Applications

- Homekit applications `lightbulb_service_with_adk` and `bridge_service_with_adk` updated to work with Homekit ADK 4.1

2.2.2 Libraries, Protocols, Drivers

- Upgraded mbedTLS to 2.16.6
- Upgraded HomeKit ADK to v4.1
- Added improvements to ADK PAL layer implementation based on the review feedback given by Apple and field issues
- Enabled `MBEDTLS_ECP_DP_CURVE25519_ENABLED` to support Ed25519 curve for HomeKit 4.1
- Removed HomeKit ADK 'HAP/libs' as HAP library is now built from source provided by Apple

2.2.3 RTOS and Network stack

- Upgraded ThreadX to version 5.9
- Upgraded NetX to version 5.12
- Upgraded NetX-Duo to version 5.12

3 API Changes (43xx Wi-Fi)

There are no API changes except upgrading to the Homekit ADK 4.1

3.1 Wi-Fi/BT Firmware Updates

- New WLAN firmware (7.15.168.149) added for 4390x/54907 platforms
 - WPA3 enhancement and key generation speed improvement
 - Security fix (KRACK all-zero-key)
- New WLAN firmware (5.90.230.38) added for 43362
 - Security fix (KRACK all-zero-key)
 - Security fix (CVE-2019-9501 and CVE-2019-9502)
 - IE parsing enhancement
 - 802.11n certs 5.2.27 fix
 - CERT-WPA2SecImp:5.2.2 fix
 - Coverity fixes
- New WLAN firmware (6.49.30) added for 43340
 - Security fix (KRACK all-zero-key)
 - Security fix (CVE-2019-9501 and CVE-2019-9502)
 - Coverity fixes
- New WLAN firmware (7.45.98.102) added for 4343W
 - Support world wide safe clm_blob
 - Fix for DMA recovery path
 - Coverity fixes
 - Security fix (KRACK all-zero-key)
 - Security fix (Dragonblood WPA3 attack)
 - Security fix (CVE-2019-9501 / CVE-2019-9502)
- Updated Bluetooth firmware for 4343x and 43340 platforms
 - Included some defensive code to prevent attacks similar to ones described in the Sweyntooth vulnerabilities
 - Fixed BT + Wi-Fi combo chip security vulnerabilities collectively known as Spectra attack (CVE-2019-15063, CVE-2020-10367 and CVE-2020-10368)

4 Known Issues

1. Starting MacOS Catalina, to install WICED Studio, the user has to modify the security settings to Allow apps downloaded from “App Store and identified developers”. Open terminal window navigate to the path where the installer is located and execute the following commands:

```
>chmod +x WICED-Studio-6.6.0xxxx.app/Contents/MacOS/*  
>open WICED-Studio-6.6.0xxxx.app
```

2. On the BCM943340WCD1 platform, only basic Wi-Fi, BLE and co-existence tests have been performed. Additionally, serial flash and OTA are not supported on this platform.
3. On BCM843362WCD4 platform, due to limited memory on the accompanying ST MCU, some Wi-Fi pre-certification tests may require adjustments to the buffer pool/MTU size. Refer to the sigma_dut.mk for details
4. The snip.secure_mqtt demonstrates the usage of WICED MQTT client by connecting to the test Mosquitto MQTT server (“*test.mosquitto.org*”). However, it has been observed that the server goes down intermittently. In such scenarios, switch to a different test server such as “*mqtt.eclipse.org*”
5. BCM943364WCD1/BCM943362WCD4: APPS in AMQP, data received at WICED server from Rabbit MQ sender is not complete
6. CYW943907AEVAL1F: snip/ping_powersave app does not enter low power mode
7. Quicksilver-EVL: Card not getting detected in COM ports for Windows/Mac and quicksilver app download error in Linux
8. ble_hello_sensor: BLE advertisement white list does not function as expected on 43xxx combo Bluetooth devices
9. STM32F2xx and STM32F4xx platforms Cannot enable 2 IRQ handlers for the same pin # across ports