Application Report

Bluetooth® SIG Erratum – Impersonation in the Passkey Entry Protocol

TI-PSIRT-2020-100068

CVEID: CVE-2020-26558

Publication date: May 23, 2021

Summary

A local attacker can insert itself during the Passkey Entry protocol exchange between a central and a peripheral device and impersonate both, acting as a man-in-the-middle (MITM) through the rest of the connection.

CVSS base score: 4.6


Affected products and versions

- CC2640R2 SDK, BLE-STACK (SDK v4.40.00.xx and prior versions)
- CC2640R2 SDK, BLE5-STACK (SDK 4.40.00.xx and prior versions)
- CC13X2-26X2-SDK, BLE5-STACK (SDK v4.40.00.44 and prior versions)
- CC1350 SDK, BLE-STACK (SDK v4.10.xx and prior versions)
- CC26x0 BLE-STACK (v2.2.5 and prior versions)
- CC2564C TI Dual-Mode Bluetooth Stack (v4.2.1.1 and prior versions with SP:v1.4)
- WL18xx TI Dual-Mode Bluetooth Stack (v4.2.1.1 and prior versions with SP:v4.6)

Potentially impacted features

The potential vulnerability can impact Bluetooth® Low Energy or BR/EDR devices running affected SDK versions that have configured the device as a peripheral and LE secure connections pairing procedure or BR/EDR Secure Simple Pairing/Secure Connections with Passkey pairing method enabled.

Suggested mitigations

The following SDK releases will address the potential vulnerability:

<table>
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<th>Affected SDK</th>
<th>SDK version with mitigations</th>
<th>SDK release dates with mitigations</th>
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<tr>
<td>CC2640R2 SDK, BLE-STACK</td>
<td>SDK v 5.10.00.02</td>
<td>April 2021</td>
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<tr>
<td>CC2640R2 SDK, BLE5-STACK</td>
<td>SDK v 5.10.00.48</td>
<td>April 2021</td>
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<tr>
<td>CC13x0 SDK, BLE-STACK</td>
<td>SDK v 4.20.00.05</td>
<td>April 2021</td>
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<tr>
<td>BLE-STACK (support for CC2640/CC2650 )</td>
<td>BLE-STACK v2.2.6</td>
<td>April 2021</td>
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<tr>
<td>CC2564C TI Dual-Mode Bluetooth Stack</td>
<td>v4.2.1.2 with SP v1.5</td>
<td>May 2021</td>
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<td>WL18xx TI Dual-Mode Bluetooth Stack</td>
<td>v4.2.1.2 with SP v4.7</td>
<td>May 2021</td>
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External references

Bluetooth SIG Statement Regarding the 'Impersonation in the Passkey Entry Protocol' Vulnerability
**Revision History**

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

**Changes from May 23, 2021 to May 27, 2021**

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<td>Added &quot;External references&quot; section.................................................................................................................. 1</td>
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