Summary

A local attacker can insert itself during the pairing protocol of a central and a peripheral using LE Legacy Pairing and complete phase 2 of the authentication without knowledge of the temporary key (TK).

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)
- CC25x0 BLE-STACK (BLE-STACK 1.5.1 and prior versions)
- CC2564C TI Dual-Mode Bluetooth Stack (v4.2.1.1)
- WL18xx TI Dual-Mode Bluetooth Stack (v4.2.1.1)

Potentially impacted features

The potential vulnerability can impact Bluetooth® Low Energy devices running affected SDK versions that have configured the devices as a Bluetooth Low Energy central and legacy pairing procedure is enabled. However, no loss of confidentiality or integrity happens unless the implementation is incorrectly using an un-encrypted link during pairing.

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>
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<td>CC2640R2 SDK, BLE5-STACK</td>
<td>SDK v 5.10.00.48</td>
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<tr>
<td>CC13x0 SDK, BLE-STACK</td>
<td>SDK v 4.20.00.05</td>
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<td>BLE-STACK (support for CC2640/CC2650)</td>
<td>BLE-STACK v2.2.6</td>
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<td>BLE-STACK (support for CC2540/CC2541)</td>
<td>BLE-STACK v1.5.2</td>
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<tr>
<td>CC2564C TI Dual-Mode Bluetooth Stack</td>
<td>v4.2.1.2</td>
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<tr>
<td>WL18xx TI Dual-Mode Bluetooth Stack</td>
<td>v4.2.1.2</td>
<td>May 2021</td>
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External references

Bluetooth SIG Statement Regarding the 'Authentication of the LE Legacy Pairing' 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

- Added "External references" section

### Page

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