Introduction

The recent KRACK attack on Wi-Fi WPA2 security (https://www.krackattacks.com) exploits vulnerabilities in the *wpa_supplicant* package. This exploit may impact Cypress chipsets used in general Linux applications as well as the Automotive segment.

This document provides details on patches to this package, both in the open source project as well as *wpa_supplicant* versions provided by Cypress to our customers.

For general information on Cypress' response to the KRACK attack, please refer to this Community site posting (https://community.cypress.com/docs/DOC-13871).

General Cypress Linux Releases

The general Linux releases posted to the Cypress community are meant to include the standard open source *wpa_supplicant.* Below you will find pointers to the set of patches needed to close the exploits associated with the 2.6 version of *wpa_supplicant.*

Exploit	Commit ID
hostapd: Avoid key reinstallation in FT handshake	0e3bd7ac684a2289aa613347e2f3ad54ad6a9449
Prevent reinstallation of an already in-use group key	cb5132bb35698cc0c743e34fe0e845dfc4c3e410
Extend protection of GTK/IGTK reinstallation of WNM-Sleep Mode cases	87e2db16bafcbc60b8d0016175814a73c1e8ed45
Prevent installation of an all-zero TK	53bb18cc8b7a4da72e47e4b3752d0d2135cffb23
Fix PTK rekeying to generate a new ANonce	0adc9b28b39d414d5febfff752f6a1576f785c85
TDLS: Reject TPK-TK reconfiguration	ff89af96e5a35c86f50330d2b86c18323318a60c
WNM: Ignore WNM-Sleep Mode Response without pending request	adae51f8b94d63313a9a922b95a402ad3f182320
FT: Do not allow multiple Reassociation Response frames	2a9c5217b18be9462a5329626e2f95cc7dd8d4f1

Cypress Automotive Segment Releases

Automotive Customers Using the Standard *wpa_supplicant*

Automotive customers that are not taking a *wpa_supplicant* package directly from Cypress can apply the patches listed in the *General Cypress Linux Releases* section above.

Automotive Customers Using the Cypress *wpa_supplicant* Package

To support some Cypress-specific functionality offered in the chipsets for the automotive segment, Cypress provides an updated version of *wpa_supplicant* with its automotive segment releases.

On October 23, 2017, the following patch package has been created:
- The KRACK supplicant patch package
    - This is a reference patch package that can be applied to an existing Cypress *wpa_supplicant* drop without fully updating to one of the new releases above
    - This package includes the following: a patch file, the reference pre-patched and post-patch files, details of the vulnerability and instructions on how to apply the patch

Please reach out to your Cypress account contact if you have any additional questions or concerns.