## Host Software Package

The Dual-Stack folder (*\talaria\_two\_dual\_stack\_vx.y\host\<host\_platform>\dual-stack*) contains bins which includes host Dual-Stack binaries conmgr and tunadapter. The dualstack\_examples folder contains the source code for example applications.

Software package for the host includes the following:

1. TUN Adapter

TUN adapter handles configuration and data transfer from host to Talaria TWO Wi-Fi module. This software module uses the InnoPhase Host Abstraction Layer (HAPI) to communicate with the Talaria TWO Wi-Fi module via SPI/SDIO interfaces. This application runs on user space of the Linux host.

1. Connection Manager

This is the user interface part of the Dual-Stack solution. This utility accepts predefined set of commands to configure the solution.

1. WLAN SDIO driver

This driver is to be used for Talaria TWO Wi-Fi module in case of SDIO transportation layer. This is not applicable for SPI transportation layer.

1. Patch files

Kernel/U-boot modifications are done using these patch files. These are optional and specific to the platform.

1. Example applications

The example applications provided showcase adding custom logic to enhance the existing Dual-Stack solution. This feature enables the user to add their own logic onto the host to communicate to the Talaria TWO Wi-Fi module.

## Talaria TWO Firmware

This is the Low Power WLAN firmware supported by Talaria TWO Wi-Fi Module. Provided as either an ELF or an SDK, this should be programmed to the Talaria TWO Wi-Fi module.

For evaluation purposes, use the appropriate Talaria TWO binary (dual\_stack.elf\dual\_stack\_sdio.elf) available in the FreeRTOS SDK package (*freertos\_sdk\_x.y\solutions\dual\_stack\bin*).

The ELF needs to be programmed to Talaria TWO using the Download Tool.

**Note**: x and y in freertos\_sdk\_x.y refer to the SDK release version.

For development purposes, the source code of the Talaria TWO application is available in the following location in the SDK package: *freertos\_sdk\_x.y\solutions\dual\_stack\src*.

User can install the FreeRTOS SDK and develop applications on top of the existing Dual-Stack solution. This provides the user with a flexibility to implement custom logic to handle host-Talaria TWO communication along with the existing Dual-Stack solution. Example applications are provided as a reference.

Refer: Example\_Applications\_for\_Dual-Stack for more details on compilation and working of the custom application.