CC3100 Getting Started with WLAN AP

Overview and application details

This sample application demonstrates how to configure CC3100 in

Access-Point mode. Any WLAN station in its range can connect/communicate to/with it as per the standard networking protocols. On a successful connection, the device pings the connected station.

By default, this application communicates w/ CC3100 over SPI. The SDK has UART-Drivers as well for MSP430F5529LP and Tiva-C platforms. For using the UART interface to communicate w/ CC3100, macro **SL_IF_TYPE_UART** has to be defined in the application-project's properties.

Note: This wiki page is only applicable for **CC3100-SDK v1.0.0** and upward releases. For documentation on older SDKs' examples, refer corresponding file in **<cc3100-sdk-installation-location>\cc3100-sdk\docs\examples**\

Source Files briefly explained

• main - Initializes the device, configures it in AP mode and verifies the connection status

Usage

- Connect the board to a Windows-PC and configure the terminal-program for seeing the logs CC3100 & CC3200 Terminal Setting has detailed instructions for configuring the terminal-program
- Open **sl_common.h** and modify values of **SSID_AP_MODE**, **PASSWORD_AP_MODE** and **SEC_TYPE_AP_MODE**. These values will define the device's credentials in AP mode
- Build and run the application using IAR/CCS
 - The device will be configured in AP mode and shall wait for clients to connect w/ it.
 - It also pings the connected clients to check the connection status\
- See the self explanatory logs on the terminal-program's console.
- Connect a client to the device and wait for few seconds for the test to complete
- · On success, below message will be displayed on the terminal

Note: User needs to reconfigure the device in 'Station-Mode' for executing other sample applications. Refer function **configureSimpleLinkToDefaultState** in this example's **main.c** for configuring the device in 'Station-Mode'.

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Building for Tiva-C LaunchPad

To build the application for Tiva-C LaunchPad, follow below steps:

- IAR
 - Open the project's **Options**
 - Replace the tivaware path under C/C++ Compiler->Preprocessor section

ategory: eneral Options C/C++ Compiler	Multi-file Compilation				
Assembler Output Converter	Code Optimizations Output List Preprocessor Diagnostics				
Custom Build Build Actions inker	Ignore standard include directories Additional include directories: (one per line)				
Debugger Simulator Angel CMSIS DAP GDB Server	\$PROJ_DIR\$\\\ \$PROJ_DIR\$\\\\simplelink\include \$PROJ_DIR\$\\\\simplelink\source C:\ti\TivaWare_C_Series-2.1.0.12573				
IAR ROM-monitor	Preinclude file:				
I-jet/JTAGjet J-Link/J-Trace TI Stellaris	Defined symbols: (one per line)				
Macraigor PE micro RDI	ewarm PART_TM4C123GH6PM=1 TARGET_IS_BLIZZARD_RA1 Preprocessor output to file Preserve comments Generate #line directives				

• Replace the tivaware library path under Linker->Library section

Category:	Factory Settings
General Options C/C++ Compiler Assembler Output Converter Custom Build	Config Library Input Optimizations Advanced Output List
Build Actions	Automatic runtime library selection
Linker	Additional libraries: (one per line)
Debugger Simulator Angel CMSIS DAP	C:\ti\TivaWare_C_Series-2.1.0.12573\driverlib\ewarm\Exe\drive
GDB Server	Override default program entry
IAR ROM-monitor	Entry symbol iar_program_start
I-jet/JTAGjet J-Link/J-Trace TI Stellaris	Defined by application
Macraigor	
PE micro	
RDI	
ST-LINK	
Third-Party Driver XDS100/200/ICDI	

- Build the project
- Code Composer Studio
 - Open the project property
 - Update **TIVAWARE_ROOT** variable available under **Resource->Linked Resources** with tivaware root directory

type filter text	Linked Resources		$\Leftrightarrow \bullet \Rightarrow \bullet$
Resource Linked Resources	Path Variables Linked Resou	rces	
Resource Filters General A Build	The locations of linked resour	ns in the file system, including other path variables with the sy rces may be specified relative to these path variables. ource 'getting, started, with, wlan, station':	ntax "\${VAR}".
 ▷ ARM Compiler ▷ ARM Linker Debug 	Name	Value	New
	CCS_BASE_ROOT	C:\ti\CCS\ccsv5\ccs_base\	Edit
	CCS_INSTALL_ROOT CG_TOOL_ROOT ECLIPSE_HOME EXTERNAL BUILD ARTI	C:\ti\CCS\ccsv5\ C:\ti\CCS\ccsv5\tools\compiler\arm_5.1.1\ C:\ti\CCS\ccsv5\eclipse\	Remove
	PARENT_LOC	D:\CC3xxx\CC3100\CC3100 SDK\cc3100 0.5 pre\SDK\ D:\CC3xxx\CC3100\CC3100 SDK\cc3100 0.5 pre\SDK\	
	(A) TIVAWARE ROOT	C:\ti\TivaWare_C_Series-2.1.0.12573	
Edit Variable			
Edit an Existing Path Variab	le		
	ROOT	ОК	Cancel
Name: TIVAWARE			EE
	/are_C_Series-2.1.0.12573 File	Folder Variable	
	and the second sec	Folder Variable	

• Build the project

Note: The solution provided in SDK for tiva-c-connected-launchpad is using the Boosterpack 2 interface.

Limitations/Known Issues

None

Article Sources and Contributors

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