



# iWRAP6™ *Bluetooth* Software

blue giga

# Topics

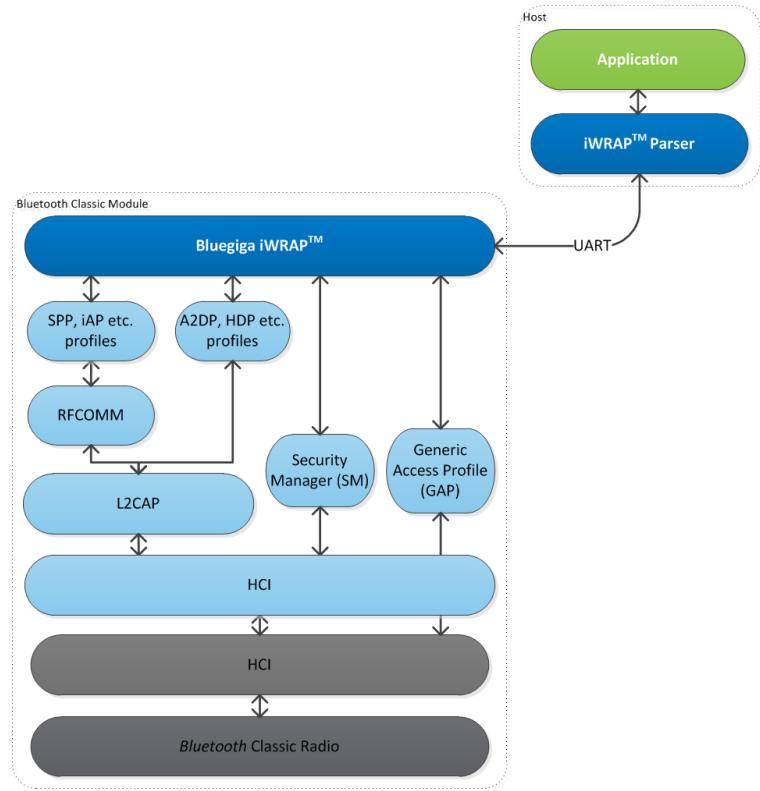
- iWRAP Introduction
- iWRAP6 Feature Highlights



Bluegiga iWRAP  
Software

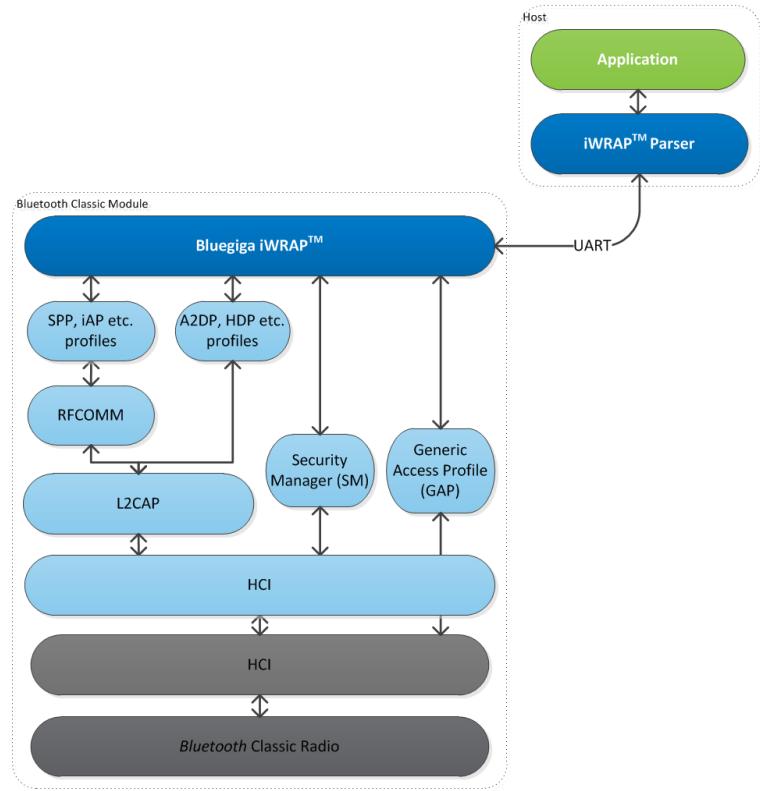
# iWRAP Introduction

- iWRAP™ is an embedded *Bluetooth* stack for Bluegiga's *Bluetooth* classic modules
  - WT12, WT11i and WT41
  - WT32 and WT32i
- **Bluetooth 3.0 compliant**
  - Up to 7 simultaneous connections
  - 500+ kbps throughput over SPP
- Implements 13 *Bluetooth* profiles
  - **Audio:** A2DP, AVRCP v.1.5, HFP v1.6, HSP, PBAP and MAP
  - **Data:** SPP, OBEX and HID
- Apple iAP1 and iAP2 Profiles
  - Provides application connectivity to Apple iOS devices and MFI compatibility
- iWRAP API for external host processors
  - ASCII "AT-like" commands over UART
- Field Upgradable
  - DFU over UART support



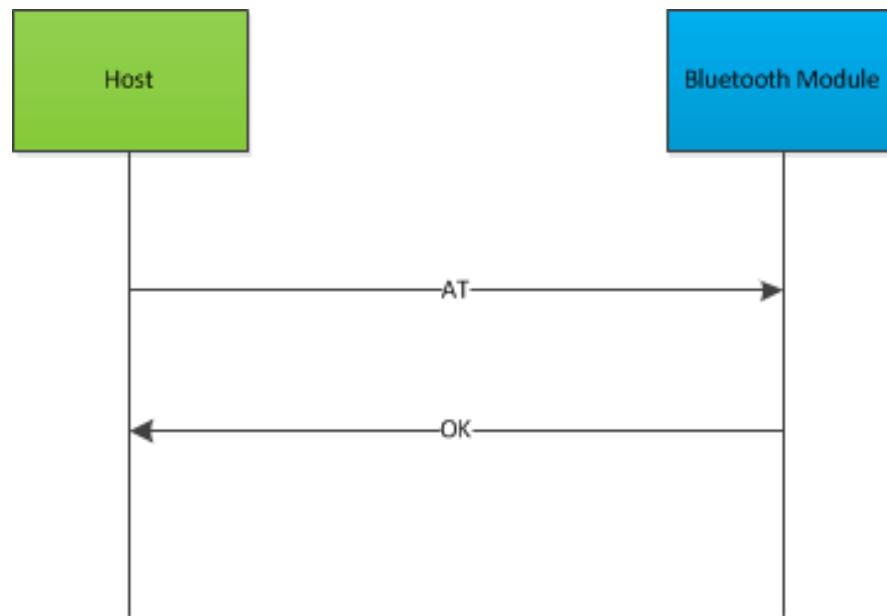
# iWRAP Introduction

- **Bluetooth Data Profiles**
  - Serial Port Profile (SPP)
  - Human Interface Device (HID)
  - OBEX Object Exchange (OPP)
  - OBEX FTP (FTP)
  - Dial-up Networking (DUN)
  - Device Information (DI)
  - Health Device Profile (HFP)
- **Bluetooth Audio Profiles**
  - Advanced Audio Distribution Profile (A2DP)
  - A/V Remote Control Profile (AVRCP)
  - Hands-Free Profile v.1.6 with Wide Band Speed (HFP)
  - Headset Profile (HSP)
  - Phone Book Access Profile (PBAP)
  - Message Access Profile (MAP)
- **Apple MFI compliant**
  - Apple iAP1 and iAP2 Profiles
  - Provides application connectivity to Apple iOS devices
- **Bluegiga Proprietary Profiles**
  - Bluegiga I/O Profile (BGIO)
  - Over-the-Air Configuration Profile (OTA)



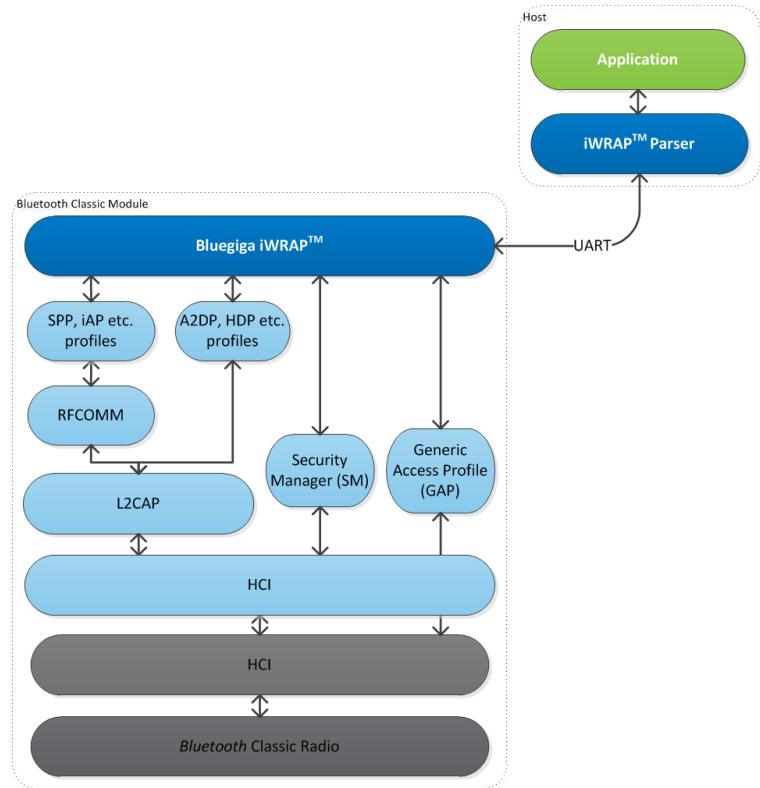
# iWRAP Introduction

- **iWRAP™ protocol** : A simple ASCII based (AT like) command, response and event protocol between the host and the stack
  - Used when a separate host (MCU) is used to control WT32i over UART



# iWRAP6 Feature Highlights

- **Apple iAP2 Profile**
  - Provides application connectivity to Apple iOS devices
  - iAP2 is the latest version of iAP required with Apple devices with lightning connector
- **AVRCP v.1.5**
  - Enables media browsing on a smart phone
  - Media search capability
  - Playlist management
- **Message Access Profile (MAP)**
  - Receive message notifications from the phone
  - Read SMS/email messages over *Bluetooth*
- **AAC Audio Decoder**
  - AAC improves audio quality over SBC
  - Supported on iOS devices
  - AAC needs a separate license:  
<http://www.vialicensing.com/licensing/aac-fees.aspx>
  - AAC is mandatory in MFI compliant devices that support A2DP
- **External codec configuration over I2C**
  - iWRAP can configuire external audio codec over I2C interface





# Thank You



[www.bluegiga.com](http://www.bluegiga.com)