

Overview of

NeST Bluetooth Stack

NeST Bluetooth Stack is specially designed for embedded applications. This protocol stack is compliant to Bluetooth specifications version 1.1 from Bluetooth SIG. It incorporates the following protocol layers as defined in the Bluetooth specifications.

1. L2CAP (Logical Link Control Protocol)
2. SDP (Service Discovery Protocol)
3. RFCOMM

It uses HCI (Host Control Interface) to communicate with the baseband module.

It also supports the following profiles.

1. Generic Access Profile
2. Serial Port Profile
3. Headset Profile
4. Hands Free Profile Version 0.96

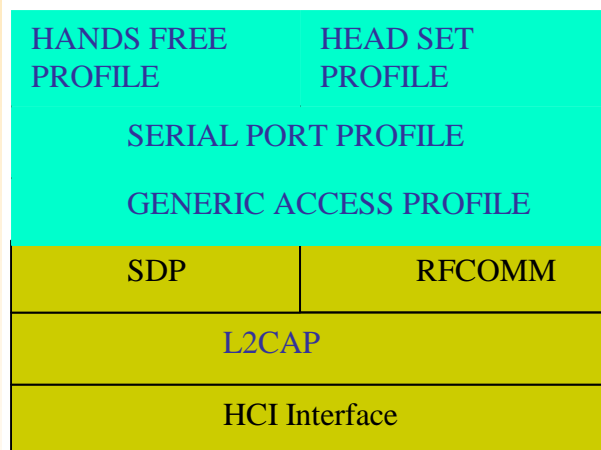


FIG 1: NeST BT Stack Components

Salient Features

Portability

NeST Bluetooth Stack is developed using ANSI C. So it is portable across a wide variety of platforms with minimum effort. Also it provides an RTOS abstraction layer to port across different RTOS.

Low memory requirements

NeST Bluetooth Stack is optimized for memory utilization which makes it suitable for embedded applications with low memory. It can work with a RAM as low as 2.5 KB and a ROM as low as 100 KB

High level APIs based on the Bluetooth profiles.

NeST Bluetooth Stack has an Application Programming Interface that is based on Profiles being supported. This enables the application developer to work at a higher level without bothering about Bluetooth level connections.

Support for HCI interface

Any module supporting HCI Interface as defined in Bluetooth Specifications Version 1.1 can be used as the base band module. It has been proven with a number of popular baseband modules from Ericsson and Infineon.

Currently only RS232 interface is supported.

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Interoperability with a wide range of Bluetooth products

NEST Bluetooth Stack is interoperable with a number of Bluetooth devices. These include Ericsson T28, T68, R520, Sony Ericsson T68i, Nokia 6310i, COMPAQ iPAQ, 3COM Bluetooth adapter and IBM PCMCIA Bluetooth Adapter.

About NEST

NEST is a global software solutions and application Development Company with strong domain knowledge of Industry Automation, Real-Time Systems, Embedded Systems, Consumer Electronics, Avionics, Healthcare, Broadband and Networking & Telecom industry segments. NEST provides total solutions to Hi-tech industries right from hardware designing to integrated software application development. NEST is certified at ISO 9001 and was the 19th company globally to be assessed at SEI CMM Level 5. NeST approach to quality has been continued with initiatives in CMMI and Six-Sigma techniques

Japan Headquarters
Nihon NeST Corporation
7F SunHeim Nagata-cho
2-17-10 Nagata-cho, Chiyoda-Ku,
Tokyo 100-0014, Japan
Tel: +81 3-5157 0506

NEST Technologies Inc.
(World Headquarters), 4511 SingerCourt,
Suite 201, Chantilly,
VA-20151, U.S.
Tel: 703 - 653 - 1100
Fax: 703 - 803 - 8319



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www.nesttech.com