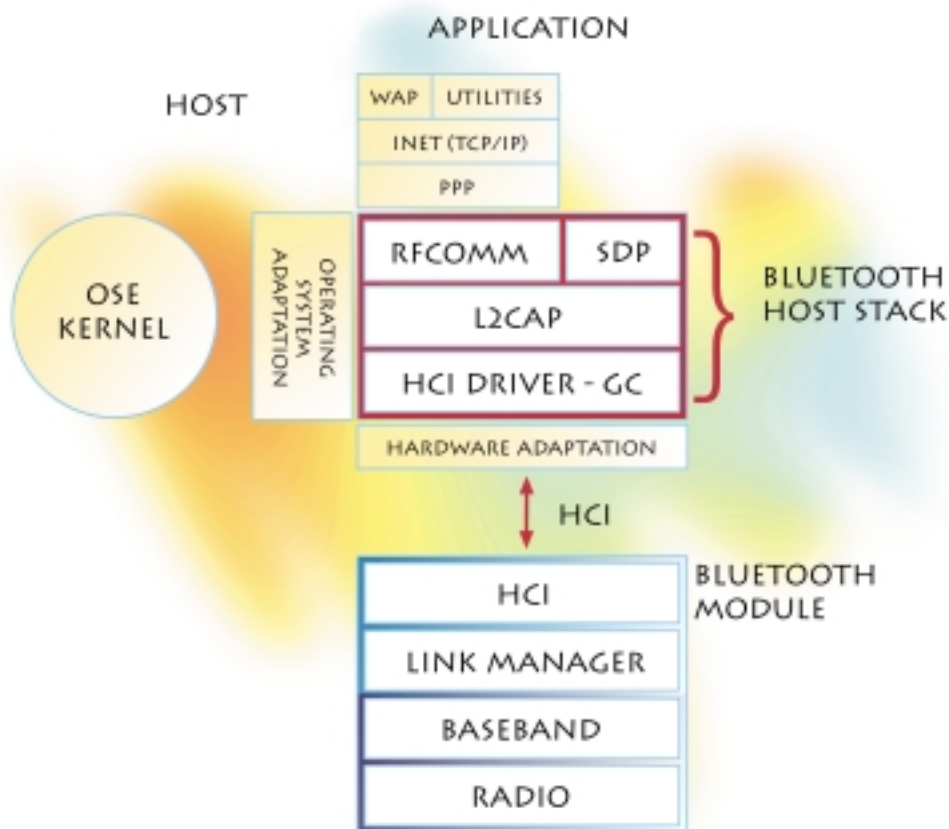


Bluetooth™ HOST Stack with OSE

Wireless communications at your fingertips

The Bluetooth HOST Stack enables local wireless connections between devices such as mobile computers, handheld units, mobile phones, digital cameras, headsets and more. The Stack contains some of the higher layers of the Bluetooth protocol stack (HCI-Driver, L2CAP, SDP, and RFCOMM). Combined with the OSE Realtime Kernel, the HOST Stack provides a quick and easy solution to building the foundation for next-generation wireless communications devices.



The Bluetooth HOST Stack is integrated with OSE networking products such as INET, PPP, WAP and more. The integration of extensive networking stacks with the Bluetooth HOST Stack enables a full-featured wireless communication solution for point-to-point connections.

Scalability, expertise and time-to-market

Whether you're using Power PC, ARM or any other CPU or combination of CPUs, you can add a ready-made Bluetooth solution to create a wireless application with very little or no additional work. As your devices grow in complexity and reach, so will your OSE and Bluetooth capabilities.

BLUETOOTH HOST STACK WITH OSE

Supported Bluetooth Adapted Protocol Layers

The Bluetooth HOST Stack contains the following higher layers and interfaces of the Bluetooth protocol stack compliant to the Bluetooth foundation specification:

- » RFCOMM
- » SDP
- » L2CAP
- » HCI Driver (Host Side Interface Driver)

RFCOMM: This transport protocol includes additional provisions for emulating the RS-232 serial ports and supports up to 60 simultaneous connections between two Bluetooth devices.

SDP: The Service Discovery Protocol provides a means for applications to discover which services are available and to determine the characteristics of those available services using an existing L2CAP connection.

L2CAP: The Logical Link Control Adaptation Protocol provides connection-oriented and connectionless data services to upper layer protocols with protocol multiplexing capability, segmentation and reassemble operation, and group abstractions.

HCI Driver: The Host Controller Interface establishes the communication between the Stack and the HCI Firmware in the Bluetooth hardware connected to the equipment running the Stack.

Bluetooth HOST Stack with OSE Offers:

The Bluetooth API

The API to the Stack is designed to be as flexible as possible. The API will offer you capabilities such as:

- » Establish and tear down data/voice connections
- » Send and receive data
- » Perform specific Bluetooth functions such as performing inquiries and page function, changing between different power settings, select encryption and more
- » Dynamically load a profile
- » Add your own API complement to suit your needs and selected environment
- » Access the L2CAP layer directly in order to implement new protocols on top of L2CAP by yourself

Portability

The Bluetooth HOST Stack communicates with the Bluetooth Module via the HCI-interface, which is standardized by the Bluetooth Special Interest Group. The stack is written in ANSI C and is independent of the development environment (compiler, debugger, linker, etc.).

Uncompromising Quality and Interoperability

The Bluetooth HOST Stack complies with the Bluetooth Specification. It will follow the developments of new Bluetooth Specification releases, and will adapt to changes in the specifications.

A Complete Solution

The Bluetooth HOST Stack with OSE comes with everything you need to develop your Bluetooth application.

Object Code:

- » Bluetooth Protocol Layers implemented for OSE

Documentation:

- » Bluetooth Functionality
- » Requirements on HOST environment
- » Guidelines for adaptation/porting
- » Guidelines for application development
- » Appendices

Integrated with OSE Networking Products

The Bluetooth HOST Stack is integrated with OSE networking products such as INET (the OSE TCP/IP stack), various utilities such as PPP, TFTP, FTP, DNS, DHCP, TELNET, network management protocols (SNMP), routing protocols (OSPF, RIP), WAP and more. The integration of extensive networking stacks with the Bluetooth HOST Stack enables a full-featured wireless communication solution for point-to-point connections.

Bluetooth in a Soft Environment

The Bluetooth HOST Stack is completely integrated with the OSE Soft Kernel and can run on a PC or workstation with full functionality, just as if it was running on target hardware. This speeds development by allowing testing of applications in the host environment before moving them onto target hardware.

In it for the Long Haul

The Bluetooth HOST Stack bundled with OSE allows you to focus on your application knowing that the most reputable communications companies worldwide are dedicated to continuously supporting and enhancing the Bluetooth component. As wireless applications evolve, OSE Systems and its selected partners lead the industry and continue to bring you the latest, most comprehensive solutions - supporting you in your race to get to market, win market share, and provide the most innovative, reliable products to your customers.

The Bluetooth concept was originally initiated by Ericsson. The Bluetooth HOST Stack offered with the OSE RTOS is a software component developed by Ericsson. The BLUETOOTH trademarks are owned by Telefonaktiebolaget LM Ericsson, Sweden.

The Bluetooth HOST Stack bundled with OSE allows you to focus on your application, knowing that the most reputable communications companies worldwide are dedicated to continuously support and enhance the Bluetooth component.



HEADQUARTERS

OSE Systems, Inc.
1731 Technology Drive, Suite 700
San Jose, CA 95110, USA
Phone: +1 (408)-392-9300. Fax: +1 (408)-392-9301.
E-mail: info@enea.com

European Headquarters

OSE Systems AB
P.O. Box 232, SE-183 23 Täby, Sweden
Visiting address: Nytorpsvägen 5
Phone: +46 (0)8 507 140 00. Fax: +46 (0)8 507 140 40.
E-mail: info.ose@enea.se



Some of the product names used herein have been included for identification purposes only and may be trademarks of their respective companies.
OSE is a registered trademark of Enea OSE Systems AB.

Made in Sweden.

© Enea OSE Systems 2000. OSESE ma808 2000:002 R1.1