



Smart Software Solutions
for Embedded Success

TCP-IP

TCP-IP Networking Software

Features

- High performance
- Compact footprint (IP/UDP@35K)
- No RTOS required
- Processor independent
- Little or no porting required for most targets
- ROMable
- Run-time configurable
- Real world SLIP
- Smart caching
- Smart packet filtering
- Wireless support
- Zero Copy for speed
- 100 % 'C' Source code
- RFC compliant
- Well commented code
- Comprehensive documentation

Applications

- Set Top boxes
- Telephone switching stations
- Factory automation
- Satellite communications
- Airport controls
- Instrumentation
- Internet appliances
- Consumer devices

RTIP, EBSnet's TCP/UDP - IP network stack, is designed specifically for embedded systems to provide a socket interface to the TCP and UDP protocols and enable simultaneous communications over multiple interfaces. EBSnet's network stack has more than 700+ design wins worldwide since 1994. RTIP is sophisticated enough to handle Wide Area Networking applications but is still compact and economical enough to be used in simple LAN applications. Regardless of the size of the embedded device, RTIP's low cost, clean implementation and high functionality have made it the networking solution for embedded device developers.

Networking Solutions for Embedded Developers

RTIP provides support for most 16-32 bit processors and can be ported to any CPU or RTOS. Drop-in solutions are available for several of the most popular operating systems and microprocessors including PowerPC, PowerQUICC II, MPC5200, Coldfire, ARM, XScale, Mitsubishi and MIPS. The RTIP protocol suite offers virtually every application protocol from basic file transfer to secure sockets; web server to email. RTIP is provided royalty free with full source code, and comprehensive documentation.

Embedded devices are diverse and demanding. EBSnet's RTIP provides the networking capabilities with the structure options that developers want for their projects:

- Deterministic, configurable memory usage
- Table driven device driver
- Simple API
- Simple, well defined porting layer
- No required disk service
- No required external function library service

INCLUDED WITH THE RTIP SOURCE CODE

No-Copy TCP No-copy UDP SLIP DNS	ARP RARP BOOTP Berkeley Sockets API	PING Ethernet IGMP V2 Ethernet and UART drivers	Multi-Casting RIPV2 ICMP File System Interface/Memory File System
---	--	--	--

OPTIONAL APPLICATION PROTOCOLS

NAT DHCP FTP TFTP Telnet	NFS PPP PPPoE SNTP CIFS/SMB	SMTP POP3 IMAP SSL SNMP V1, V2, V3	Web Server Web Browser 802.11b Wireless UPnP™ AutoIP
--------------------------------------	---	--	--

FUNCTIONALITY HIGHLIGHTS

ARCHITECTURE :

- Pre-allocated data structure for link management fields
- Pre-allocated pointer to a data area
- OS independent queue data management
- Internal sliding window buffering

MEMORY:

- Compiler/linker allocates space for greatest portability
- Easily converts to runtime allocation scheme
- Abstracted memory allocation

CONFIGURABILITY:

- Optional protocol subsystems
- Variable number of sockets and interfaces available
- Variable buffer sizes, tables, timing parameters
- Constants may be modified at run time
- Protocol elements may be excluded to reduce ROM/RAM

EXTREME PORTABILITY:

When porting is required, get up and running quickly and easily. EBSnet's RTIP is designed to let the DEVELOPER choose the development tree structure.

- Rapid prototyping within Windows or Linux
- Designed for quick and easy ports to new environments
- Simple library porting layer
- Portable to any environment that supports a 'C' compiler
- Minimal number of OS services required
- OS services invoked through a well-defined set of modules
- Runs without real time kernel (POLLOS)
- Simple integration with existing applications
- Comprehensive set of example programs and regression tests
- Designed to run deeply in embedded applications with little or no console I/O capabilities
- Clear documentation

QUALITY TECHNICAL SUPPORT PROVIDED BY THE EXPERIENCED ENGINEERS WHO WROTE THE CODE.

