



## IPv4/IPv6

## Dual Network Stack

### Features

- RFC Compliant
- High performance
- Compact footprint
- No RTOS required
- Processor/kernel independent
- Easy porting layer
- Run-time configurable
- Zero copy option for speed
- 100% ANSI C source code
- Well commented code
- Comprehensive documentation
- Conforms to U.S. Federal Government Purchasing Policy

### Applications

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

EBSnet's Dual Network Stack incorporates key attributes of the current industry-standard Internet Protocol (IPv4), and expands utility and crucial functionality for the next generation of Internet-enabled embedded devices (IPv6). Since IPv4 and IPv6 headers are not interoperable, EBSnet's dual stack offers a unique and flexible combination of networking support for devices that must operate in today's IPv4 based networks and yet be compatible with future upgrades to IPv6 environments. The dual stack handles both IPv4 and IPv6 networking traffic in a seamless and efficient manner.

The 128-bit address space that IPv6 uses increases the number of available IP addresses to 342 trillion, trillion, trillion. This will allow businesses to deploy a great array of new embedded network devices in a cost effective, managed manner. The advanced auto configuration features will allow automatic attachment of these devices to the network without the costs of manual configuration.

IPv6 also addresses the security shortcomings of IPv4 with a protocol level enhancement called IP Security (IPSec). This feature offers robust authentication and strong packet encryption that protects the origin, destination and packet contents over the IP layer. This feature will become increasingly important as online financial transactions become more commonplace.

#### NETWORKING SOLUTIONS FOR EMBEDDED DEVELOPERS

The IPv4/IPv6 networking stack provides support for most 16-32 bit processors and can be ported to any CPU or RTOS using the easy to use porting layer. Drop-in solutions are available for several of the most popular operating systems and microprocessors including PowerPC, PowerQUICC II, MPC5200, Coldfire, ARM, XScale, Mitsubishi, SH8 and MIPS.

The IPv4/IPv6 dual stack is provided royalty free with full source code, and comprehensive documentation. EBSnet's dual stack provides the networking capabilities with the structure options that developers want for their projects:

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