

# HyNetOS<sup>®</sup> v3 Overview

## Royalty Free!

The dedicated OS for the Hyperstone hyNet32<sup>®</sup> Family

### Description

#### Core Functions

Network Operating System specifically designed for embedded communication systems. Dedicated support for Hyperstone 32-Bit RISC/DSP hyNet32 processor family.

- Multi tasking RTK
- Purely asynchronous operating mode
- Hardware abstraction layer (HAL)
- File system incl. RAM disk and flash disk
- Protocol manager including standard TCP sockets
- Time management service
- Message system
- Remote configuration monitor
- Remote tracing
- Boot-over-Ethernet
- Boot-from-Flash-Disk
- In-the-field OS updates are possible
- All available device drivers including UART, I2C, CAN, Ethernet, LCD, keypad, CF-Memory-Card, Flash, CMOS image sensor, RTC, GPIO.

#### Protocols:

- ARP
- IP
- ICMP
- UDP
- TCP
- DNS
- DHCP (Client)
- Telnet (Server)
- FAT16 file system
- JPEG compression
- JPEG decompression

#### Server & Client Functions

Protocol support for typical embedded server and client applications:

- HTTP (Multi-client Web Server & Web Page retrieval)
- FTP (Multi-client File Transfer Server and File Transfer)
- SMTP (send E-Mail)
- Network Camera / IP camera with Image Viewer

#### Miscellaneous Functions

Protocol support for typical embedded Internet dial-in/dial-out and routing applications

- General support for modems (Analog, ISDN, GSM)
- AT command dialer
- Active PPP Internet dial-in (direct or on demand triggered by incoming call)
- PPP Server for direct dial-in from any dial-up-networking client (e.g. Windows PC)
- Ethernet bridging over serial port
- IP routing over serial port
- IP forwarding over all available Interfaces
- SNMP Agent (V1, V2, V2c)

#### Easy Migration to extended version of 4NetOS<sup>®</sup> featuring:

- Secure Web Transfers with SSL v3.0
- Bluetooth Host Protocol Stack
- Real-Time Ethernet Protocols – Ethernet Powerlink, PROFINET, EtherNet/IP
- Java2 Micro Edition CLDC Virtual Machine

#### Development Tools (Build & User tools)

- GNU based C-Compiler, Assembler, Linker, Library Manager
- HYDEBUG (C-Debugger)
- HYADMIN (service provider for board hardware set-up, memory size, etc.)
- HYCONV (converts different formats of system executable files)
- HYFLASH (FLASH management inc. programming and partitioning)
- HYTRACE (concurrent multi target tracer)
- HYMON (configuration, command & debug console)
- HYLOAD (fast System Executable loader)
- CreateRamDisk, CreateFlashDisk

