

*NicheStack IPv6™ is a complete IPv6 protocol stack designed from the ground up for connected device implementations.*

#### NicheStack IPv6 Highlights

- IPv6 Host functionality
- IPv6 Address Resolution
- Raw IP/UDP/TCP with BSD-compatible sockets
- Support for IPv6 Multicast and Neighbor Discovery
- Non-blocking versions of all functions
- Versatile MSS and window options
- Connections limited only by memory availability
- Optimized assembly language checksum routines available
- "Predictive" header processing for improved performance
- Nagle Algorithm (Slow Start)
- VJ Smoothed Round Trip Timing
- Delayed ACKs
- BSD style "Keep-alive" option
- NicheTool™ tuning and system optimization utility included
- Trivial File Transfer Protocol (TFTP), FTP and Telnet included
- No "GPL Contamination"

## NicheStack IPv6

NicheStack IPv6™ offers the support that you need for future networking compatibility in a highly configurable and extremely compact package. Its functionality and footprint scales for use from small low-power handheld devices to next-generation infrastructure and enterprise equipment designs.

The architecture of IP Version 6 (IPv6) resolves a number of unanticipated IPv4 design issues and is designed to enable the next generation UDP and TCP-based Internet applications while supporting vastly more connections and mobile endpoints. It provides welcome additional functionality for networked devices and overcomes existing address space limitations, replacing the 32-bit IPv4 addresses with 128-bit IPv6 addresses.

NicheStack IPv6 incorporates and supports all of the key features of the IPv6 protocol while remaining ideal for use in embedded devices:

- Simplified header structure
- Larger IP address space
- Efficient and hierarchical addressing and routing infrastructure
- Stateless and stateful address auto-configuration
- Better support for QoS
- New protocol for neighboring node interaction
- Provisions for Protocol Extensibility

NicheStack IPv6 is fully RFC compliant and has been extensively tested for interoperability with other IPv6 implementations. Advanced features such as IPSec security, full device management and rapid IP-failover make NicheStack IPv6 the embedded developer's choice for future secure device and high availability development projects.

NicheStack IPv6 also includes NicheTool, the most comprehensive debug and system optimization tool available in any commercially TCP/IP stack. Menu driven and customizable by development engineers for any added components, this very useful utility greatly assists the process of optimizing NicheStack for the memory usage and performance characteristics of the application.

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## InterNiche Device Networking Products

InterNiche is the premier specialist provider of internet protocol software stacks and networking expertise specifically targeted at connected device implementation. InterNiche offers a broad range of TCP/IP protocol suites, optimized for maximum performance and minimum memory footprint on the highly integrated VLSI at the heart of today's device designs.

All InterNiche device networking products are engineered for rapid, seamless integration with best-in-class development environments for the leading VLSI architectures. The combination of rapid integration and low overhead specifically addresses the challenges faced by device development teams by offering maximum networking performance and manageability within a low cost system implementation.

InterNiche provides a tasking API that is adaptable to almost any RTOS environment, so that the development team can easily interface to the necessary functions and incur no additional overhead. Throughput is maximized through effective usage of zero-copy buffers and availability of assembler optimizations for critical code sections.

A modular approach to the entire suite of protocol products maintains a development team's capability to profile stack features to match specific device requirements. With configuration flexibility and the tools to identify and eliminate integration problems development teams find that system integration using InterNiche products is smooth and predictable.

InterNiche products are supplied as portable ANSI C source code packages under royalty-free license terms. All products include full technical documentation and a first 12 months of highly responsive support service, which includes access to technical experts via email, web, Fax, and telephone.

For further information on any of these products or services please call, email or visit our web site.

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The Specialist Provider of Software and Expertise for Device Networking

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