

NicheStack Gateway components are optimized for use in conjunction with NicheStack Dual and IPv4 device networking packages, greatly simplifying development and configuration network equipment.

NicheStack Gateway Highlights

RIP:

- Seamless integration with NicheStack products for router and gateway applications
- Supports for RIPv1 , RIPv2 and RIP silent process
- Includes triggered updates and split horizon implementations

NAT:

- NAT includes traditional (outbound) NAT and Network Address Port Translation (NAPT)
- IP Multicast through NAT supported

DHCP Server:

- DHCP server validated with DHCP, DHCP Relay and BOOTP clients
- Fixed or dynamic local address assignment
- Supports two different database access methods
- DHCP code includes parsing standard bootptab file where required

DNS Server:

- DNS Server enables caching and executes over UDP sockets
- DNS supports Resource Records (RRs) of the types A, NS, CNAME, PTR, HINFO, and MX

InterNiche Gateway Product Family:

- No "GPL Contamination"

RIP

NicheStack RIP is an Interior Gateway Protocol (IGP) module engineered for efficient traffic management in networked devices. RIP enables traffic forwarding and dynamic sharing of IP gateways and route information. RIP includes a number of advanced techniques to prevent routing loops and host update failures including triggered updates, split horizon and split horizon with poisoned reverse.

NAT Router

NicheStack NATRouter can be used to create a private IP address space for traffic on one side of a gateway or router device, easing security issues and reducing requirements on the IP address space in a network. Up to 64k local addresses can "masquerade" behind the NATRouter function, with extensible ALG support to ensure functional transparency for application operation.

DHCP Server

The NicheStack DHCP Server is the standards-based method of providing local IP addresses and network information to devices on a TCP/IP based network. The DHCP Server is a complete device optimized implementation of this important network configuration protocol with a capability to assign dynamic (variable lease-time) or static address information to subscribing client devices. DHCP is compatible with the most up-to-date Microsoft® Windows 2000/XP clients and is backward compatible with older BOOTP requests. Configuration and addresses assignment storage can be supported via a database on a virtual disk or in flash memory.

DNS Server

Adding the capability of internet DNS support and named private clients within the local network is the NicheStack DNS Server. The DNS Server acts as a proxy for local client, using the DNS request/response message formats to communicate using the UDP protocol. A local DNS client in a gateway implementation minimizes the request overhead and latency of external transactions and provides the potential of a local name space to ease client configuration and support. InterNiche's DNS Server supports both forward and reverse DNS transactions.

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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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