Portable RIP, PPP, Email Alerter & Telnet Options

ROUTING INFORMATION PROTOCOL

InterNiche's Portable RIP is a complete module for developers of embedded systems to add RIP functionality to their embedded product. RIP eliminates the need to manually create routing tables by enabling the embedded system to dynamically gather and supply gateway IP addresses that are needed for routing. RIP is an Interior Gateway Protocol (IGP). It can be used with InterNiche's TCP/IP stack or any other TCP/IP stack. The support for any feature can be added with a simple "#define".

PRODUCT FEATURES

· Support for RIPv1 and RIPv2: They can also be exclusively enabled.
· Support for RIP Silent Process: A Silent Process listens for route broadcasts and updates its route table. But it does not participate in sending route broadcasts.
· Triggered Updates: The "Counting to Infinity" problem is solved by using triggered updates. All neighbors are informed whenever a route is updated.
· Split horizon and Split horizon with poisoned reverse: These techniques are used to prevent routing loops and situations where hosts don't get updated about an unreachable gateway.
· RFC 1773 based Simple authentication scheme: Password is supported for each interface.
· Support for any feature can be enabled with a simple "#define".
· Supports InterNiche Multicast IP.

RFC Compliance

· RFC 1058 - Routing Information Protocol
· RFC 1723 - RIP Version 2-Carrying Additional Info.

Language

RIP source code is all ANSI compatible "C" language.

Memory Requirements

Maximum code and static data memory requirement for RIP code is 50k bytes on an Intel x86 processor when compiled with Microsoft C. Features can be turned off to reduce memory requirement.

POINT TO POINT PROTOCOL

InterNiche's Portable PPP stack is a complete SDK for developers of embedded systems to add Point to Point Protocol functionality to their InterNiche TCP/IP stack. It includes ANSI "C" sources for the PPP family of protocols listed below and full technical documentation. The InterNiche PPP layer can function as a client or a server, supports all standard PPP authentication protocols, and DHCP over PPP. The PPP stack has a very small memory requirement which is ideal for all embedded applications.

PRODUCT FEATURES:

· VJ header compression
· PAP and CHAP security
· Hayes dialing code included
· Supports multiple simultaneous links
· Supports DHCP
· Supports computer-to-computer direct connect

Protocols Included with PPP:

· LCP
· IPCP
· CHAP
· PAP

RFC Compliance

· RFC 1332 - The PPP Internet Protocol Control Protocol (IPCP)
· RFC 1144 - Compressing TCP/IP headers for low-speed serial links [VJ Compression]
· RFC 1661 - Point-to-Point Protocol (PPP)
· RFC1994 - PPP Challenge Handshake Authentication Protocol (CHAP)

Language

PPP source code is all ANSI compatible "C" language.

Memory Requirements

Maximum code and static data memory requirement for PPP code is 30K bytes on an Intel x86 processor when compiled with Microsoft C. Features can be turned off to reduce memory requirement.

EMAIL ALERTER

InterNiche's Portable Email Alerter is a complete drop-in software module for developers of embedded systems to add notification functionality to their embedded systems. Email Alerter is a set of routines that allows the end user to send predetermined messages from the embedded system to a designated email address, local or remote. The Email Alerter can be used for embedded messages such as "phone home" to register itself when a product is initially installed as well as trouble reporting for a variety of predetermined conditions. The Alerter will address multiple addresses and send multiple messages to add true robustness to any embedded application with communications capability.

PRODUCT FEATURES

Easy to Program:

- · Sockets interface makes porting quick and easy.
- · One call does it all - it passes a text message to the mailer and the mailer takes care of the rest.
- · Callable from ISRs and critical sections.
- · Uses standard SMTP protocol.

RFC Compliance

- · RFC 821 - Simple Mail Transfer Protocol
- · RFC 1869 - SMTP Service Extensions
- · RFC 1870 - SMTP Service Ext for Message Size

End User Features:

- · Supports multiple target email addresses.
- · Supports many individual messages and formats.
- · Email content can be sent from a file.
- · POP3 Email

TELNET

InterNiche's Portable TELNET Server is a complete drop-in software module for developers of embedded systems to add TELNET Server functionality to their embedded product. TELNET Server capability enables an embedded system to provide network accessibility for remote configuration and monitoring through the TELNET Server. It is compatible with commercial TELNET Clients (Windows 95, Windows NT, UNIX etc.).

PRODUCT FEATURES

- · Support for multiple TELNET sessions
- · Highly portable with very low foot-print (Can be easily plugged into the embedded device for remote configuration and monitoring)
- · Supports generic mechanism for negotiating options, making it very easy to add support for new options
- · Step-by-step porting guide to insure easy porting
- · Supports user-authentication

RFC Compliance

- · RFC 854 - TELNET Protocol

Language

TELNET Server source code is all ANSI compatible "C" language.

Memory Requirements

When all features are enabled, code and static data space used by the TELNET Server is approximately 32k bytes on an Intel x86 processor when compiled with Microsoft C. By default, approximately 3.5k bytes (configurable at compile time) of dynamic memory is used for each TELNET session

SUPPORT SERVICES

All InterNiche Products and Options include one year of Software Warranty. Optionally, InterNiche also provides an Annual Support Program, which consists of unlimited electronic support enabling users to quickly integrate the software, assuring that the implementation will perform properly, thus decreasing time to market.

After the initial Warranty/Annual Support Program, InterNiche customers can choose to renew Support at two levels: Gold Support, which includes electronic support, or Platinum Support, which adds new product releases to the Gold Support level.

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