

Treck Mobile IP

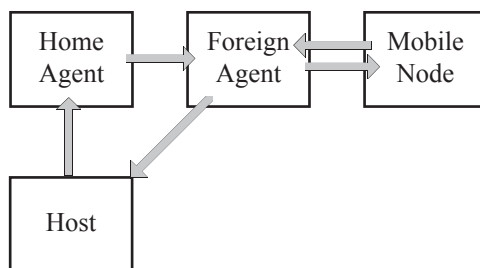
product information

High performance embedded systems are the key technologies fueling the innovative, high-growth applications of today's fast-growing markets. These include digital wireless, broadband access, digital audio, high-resolution imaging and digital motor control. A key reason for embedding pre-designed functions is to reduce the time it takes to get complex systems to market while speeding their proliferation.

The ability to rapidly design, test, debug and manufacture a device is crucial to the continued success of the electronics industry.

The embedded systems market is integrating computing and networking platforms capable of adapting to a range of specific applications. Whether you are a silicon manufacturer or OEM, you need a top of the line networking stack to reduce your capital expenditure risk and meet the stringent requirements of the market.

Treck's networking protocols are specifically designed for embedded systems. We have created fast, efficient and reliable plug and play communication protocols so you can concentrate on your core competency and build designs that meet your "time to market" needs. Treck Mobile IP is the ideal choice for your mobile device.



Modular Design

The Treck TCP/IP protocol suite can be configured to only include certain modules. When a module is not utilized, it is not just deactivated, it is removed entirely to save valuable storage space in the often limited capacity of an embedded device.

True Zero Copy

Treck products are zero copy from the application all the way through the driver, including TCP, this increases processing speed.

Written Specifically for Embedded Systems

Treck is written from the ground up, not derived from publicly available Unix stacks. Berkeley 4.4 compatibility, small size and high performance are key elements of our design.

Can Run with or without RTOS

The stack is designed to easily integrate into an RTOS or Kernel. It can also run without an RTOS as its own task.

ROMable

Some program variables never change their value at run-time, but instead are assigned a hardcoded value at compile-time. These variables could be put into ROM, if the code was written in such a way to identify them to the compiler. We add the "const" keyword in front of such variables to indicate they never change their value so the compiler can locate them in ROM instead of in RAM. This conserves RAM.

Included protocols

- Mobile IP (RFC-2002)
- IP Encapsulation (RFC-2003)
- Minimal IP Encapsulation (RFC-2004)



Mobile



Network

Treck Inc.

Treck Mobile IP

product features

Treck Mobile IP allows a mobile device to roam to different IP networks while still being identified by its original IP address.

Designed to be used with Treck TCP/IP, it provides the same high quality and performance that embedded systems designers have come to expect from Treck.

Features

- Works with or without a foreign agent present.
- Mobile IP will detect when the mobile node has changed subnets and automatically register with the home agent, without any user intervention.
- A notification function is provided so that the state of the mobile can be accurately tracked.
- All operation parameters can be configured at runtime.
- 100% RFC compliant
- Link layer independent
- User control of Mobile IP operation includes the ability to start move detection, notify of a possible network change and re-register with the current agent

Runtime Configuration

- Number of retransmissions and timeout values for all components of Mobile IP, such as registration and solicitations.
- A device can be configured to either co-locate or use a foreign agent.
- Call back functions to provide authentication information when authenticating to various foreign agents.
- Information about the home agent can be provided, including address and authentication information.
- The device can optionally be set to also receive broadcast messages from the home network.
- The registration lifetime can be biased downward which assists in move detection as well as avoiding registration timeouts.
- User preference dictates the use of a foreign agent or a co-located address.

For more information, please visit www.treck.com.



Mobile



Network

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