

Treck Mobile IPv6 *Mobile Node*

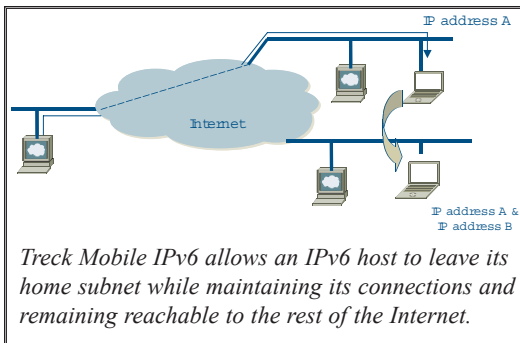
product information

Treck Mobile IPv6

Mobile IPv6 allows a Mobile Node, such as a handheld Internet-enabled device, to send and receive packets with its global IPv6 home address, regardless of the IP address of its current point of attachment to the Internet. This unchanging global IPv6 address becomes a global network ID for that user enabling "always on" Internet connections as well as push technologies where the network initiates the connection to the user.

Treck Mobile IPv6 addresses the growing need for mobile devices to achieve "always on" Internet connectivity while maintaining their global IP address as they travel seamlessly through various networks.

This technology is typically applied to forward-looking devices such as 3G mobile phones, automotive telematics, or a laptop roaming across the globe with its user.



Treck Mobile IPv6 Applications

Treck Mobile IPv6 enables roaming between different L2 technologies: seamlessly switch between different network interfaces (I.e. from 3G wireless or GPRS to 802.11b) while preserving your application connectivity.

Network "push" scenario: accept incoming VoIP packet-switched phone calls on your global scope IPv6 (unchanging) home address, regardless of where you are physically attached to the network.

Like all of Treck's embedded products, *Treck Mobile IPv6* is:

- 100% RFC Compliance
- True Zero-copy
- Written specifically for embedded systems
- Runs with (or) without RTOS
- Platform and RTOS Independent
- Extensively tested internally and externally



Mobile



Network

Treck Inc.

Treck Mobile IPv6 Host

product information

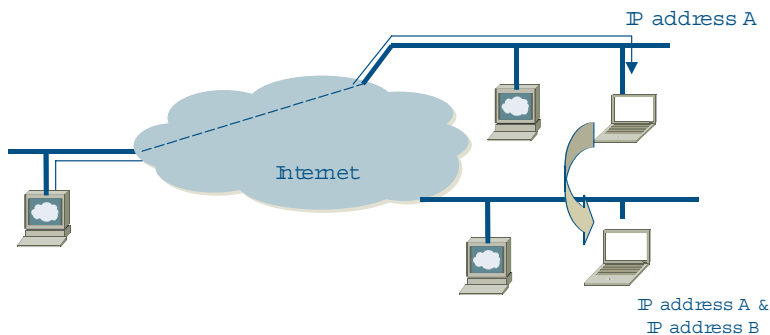
Treck Mobile IPv6

Treck Mobile IPv6 allows an Internet-enabled mobile host such as a cell phone or PDA, package delivery truck, passenger jet, etc., to send and receive IPv6 packets using its global IPv6 home address regardless of its current point of attachment to the Internet.

This unchanging global IPv6 home address is a global network ID enabling "always on" Internet connections, as well as push technologies where the network initiates the connection to the mobile host.

For example, Mobile IPv6 can enable a user to accept incoming VoIP packet-switched phone calls over WiFi to their global home address regardless of where they are physically connected to the Internet.

Treck Mobile IPv6 supports seamless switching between different network technologies such as 3G wireless, GPRS, WiFi, Bluetooth, etc.



Treck Mobile IPv6 allows an IPv6 host to leave its home subnet while maintaining its connections and remaining reachable to the rest of the Internet.

Treck Mobile IPv6 Features

- Mobile Node & Correspondent Node compliant with latest IETF drafts: draft-ietf-mobileip-ipv6-24.txt draft-ietf-mobileip-mipv6-ha-ipsec-06.txt
- Route optimization can be excluded at compile-time, further reducing code size; can also disable globally or per application socket
- MN Binding Update List and CN Binding Cache are fully integrated with existing Treck TCP/IP performance optimizations
- Includes Wi-Fi example device driver (Intersil PRISM 2.5)
- Fully compliant with TAHI test suite

Like all of Treck's Embedded products, *Treck Mobile IPv6* is:

- 100% RFC Compliance
- True Zero-copy
- Written specifically for embedded systems
- Runs with (or) without RTOS
- Platform and RTOS Independent
- Extensively tested internally and externally



Mobile

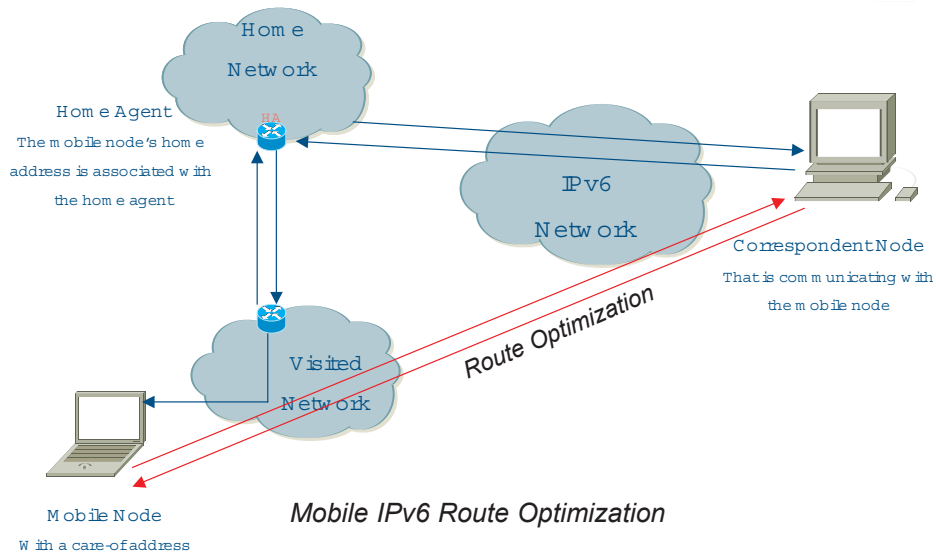


Network

Treck Inc.

Treck Mobile IPv6 Host

product information



True Zero Copy

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

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. Additionally, our initialization code assigns initial values to global variables located in RAM.

Correspondent Node (CN) Features

- Supports sending Binding Refresh Request message
- Compile-time macro limits size of Binding Cache
- Optimized nonce and Kcn management
- Optimized Binding Cache maintenance
- Binding Update replay attack prevention

Mobile Node (MN) Features

- Fully integrated with Treck's IPsec/IKE
- Home addresses are configured by user application on special virtual home interface
- Supports Mobile Prefix Solicitation/Advertisement messages
- Supports Dynamic Home Agent Address Discovery
- Implements MIPv6 Generic Movement Detection with support for L2 triggers with optional support for Eager Cell Switching
- Supports Key Management Mobility Capability (K) bit in Binding Update and Binding Acknowledgement messages
- Integration with wireless TCP



Mobile



Network

Treck Inc.