Fusion Embedded™ STUN

STUN allows an IP node that is operating behind a NAT firewall to discover the existence of the NAT firewall, to discover what public IP address NAT is using, and to discover to what public UDP port the NAT device maps a given local UDP port. STUN can be used for NAT traversal with any UDP based protocol but it was created specifically for use with the Session Initiation Protocol (SIP) used for Voice over IP (VoIP) signaling, and with the Real-Time Transport Protocol (RTP) sessions that are created to carry the voice traffic for SIP calls.

Simple Traversal of Datagram

The Fusion Embedded™ STUN implementation provides some high-level Application Programming Interface (API) functions that allow an application developer to easily use STUN for NAT traversal.

Features

- RFC 3489 (Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators" for NAT Discovery and Binding Acquisition)*
- It provides an easy to use API function that performs the NAT/Firewall discovery algorithm described in Section 10.1 of RFC 3489
- Fusion STUN provides API functions to use to retrieve the NAT address and port mappings for the local IP address and a given UDP port number
- Written in 100% ANSI C portable source code using porting macros for all system dependencies (C runtime functions etc.) for the ultimate in portability
- Easily ported to any networking stack with a BSD style network sockets

Note: This release of Fusion STUN does not support message integrity via shared secrets as described in Section 9.2 of RFC 3489.

Fusion Embedded™ Fully Integrated Protocols

Voice & Video Protocols

| RTP | SRTP | SIP |
| SIPS | STUN | |

Networking Protocols

TCP/IPv4/IPv6	FTP
DHCP	HTTP
NAT	DNS Resolver
RIP	Telnet Server
PPP	PPPoE	SNMP
SNTP

Security Protocols

| HTTPS | IPsec | SSL/TLS |
| IKE | SIPS | SRTP |