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"Live On a Wild Feed... Safely"
UT Tunnel Installation Notes

Introduction:
The UT series encrypted ethernet tunnel provides secure encrypted ethernet connectivity between multiple ethernet LAN locations via an untrusted UDP/IP path. This UDP/IP path may consist of a captive network, the Internet, or any combination of IP connectivity that includes satellite links, wireless links, Internet, and private ethernet.

While the trusted interface of the UT should always be connected to a protected, private LAN segment; the untrusted interface may be installed in several configurations depending upon local infrastructure and security policy requirements. This note describes some of those installation options.

Connectivity Requirements:
Upon power up, UT units configured as clients create a virtual connection to the UT units configured as servers. That requires the server have an untrusted interface IP address that is visible to the client. This interface may be directly connected to the Internet or connected via any type of port forwarding firewall. Any method works as long as the client has access to an IP address with which to connect and UDP packets are forwarded to the server's untrusted interface. Only a single UDP port needs to be forwarded. The default is port 22, but this is easily changed during normal configuration.

Security Discussion:
The UT products provide a hard firewall between their trusted interface and their untrusted interfaces. No unauthenticated packets cross that boundary. The only packets that transverse the UT are those received from a corresponding UT product that is configured with the proper shared passphrase, unit ID name, and unit passphrase. These are authenticated in both directions using a hash-based message authentication code. The authentication code is a public implementation of HMAC which uses SHA-1 for bidirectional authentication. Actual data passed between the UT products is encrypted using AES with a session key generated periodically.

A properly configured UT will return as a "black hole" to an intensive NMAP scan.