

ESP Echo Protocol

draft-colitti-ipsecme-esp-ping-02

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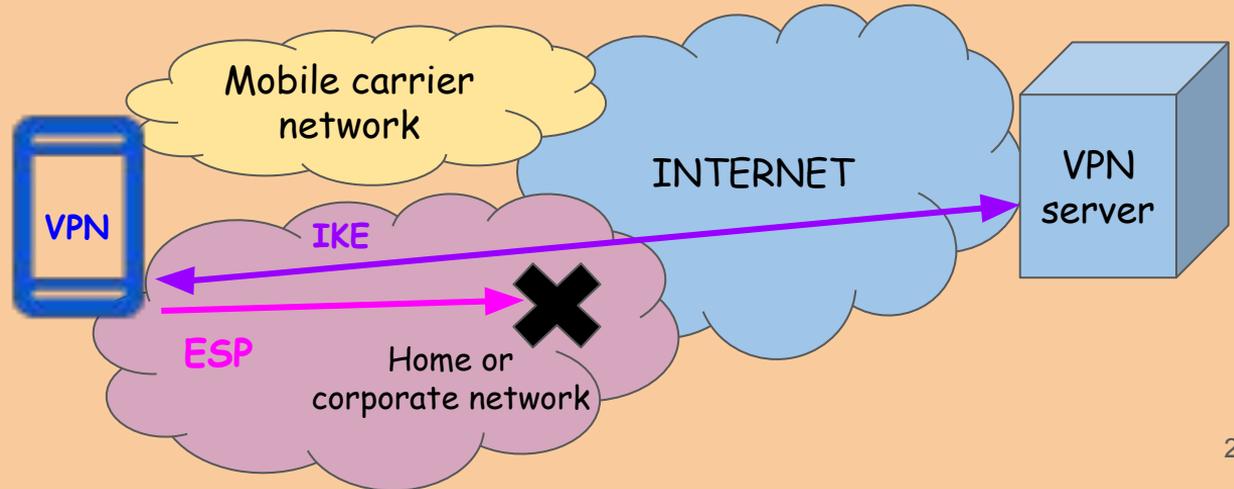
Problem Statement

ESP packets do not share fate with IKE

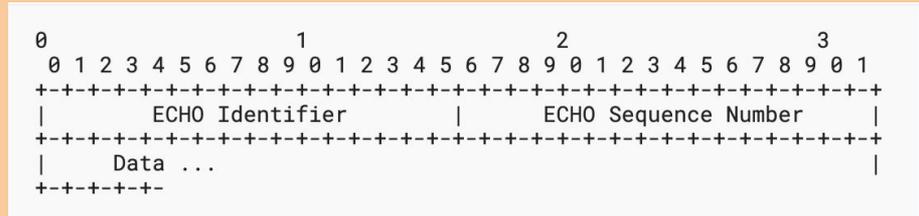
IKE might succeed but ESP packets are dropped

Hard to detect and recover

Data traffic is blackholed



Solution Overview



The node *MAY* send an IPv6 ESP Echo Request packet:

- SPI = 7, Next Header = 59

The peer *SHOULD* respond with an ESP Echo Reply packet:

- SPI = 8, Next Header = 59
- **MUST** copy the data from Echo Request up to the MTU

Changes since the IETF119: Use Cases

- A node discovering if the network could carry ESP packets
- Troubleshooting mechanism for network administrators
- Keepalives, to maintain firewall state entries

Fallback Scenarios: ESP Ping failures

- Senders *MAY* use other means of sending ESP packets:
 - encapsulation
 - use a different IP protocol
 - use a different server or interface.
- Senders *SHOULD* still attempt to use ESP if no alternative means are available

Questions? Comments?
Adoption?