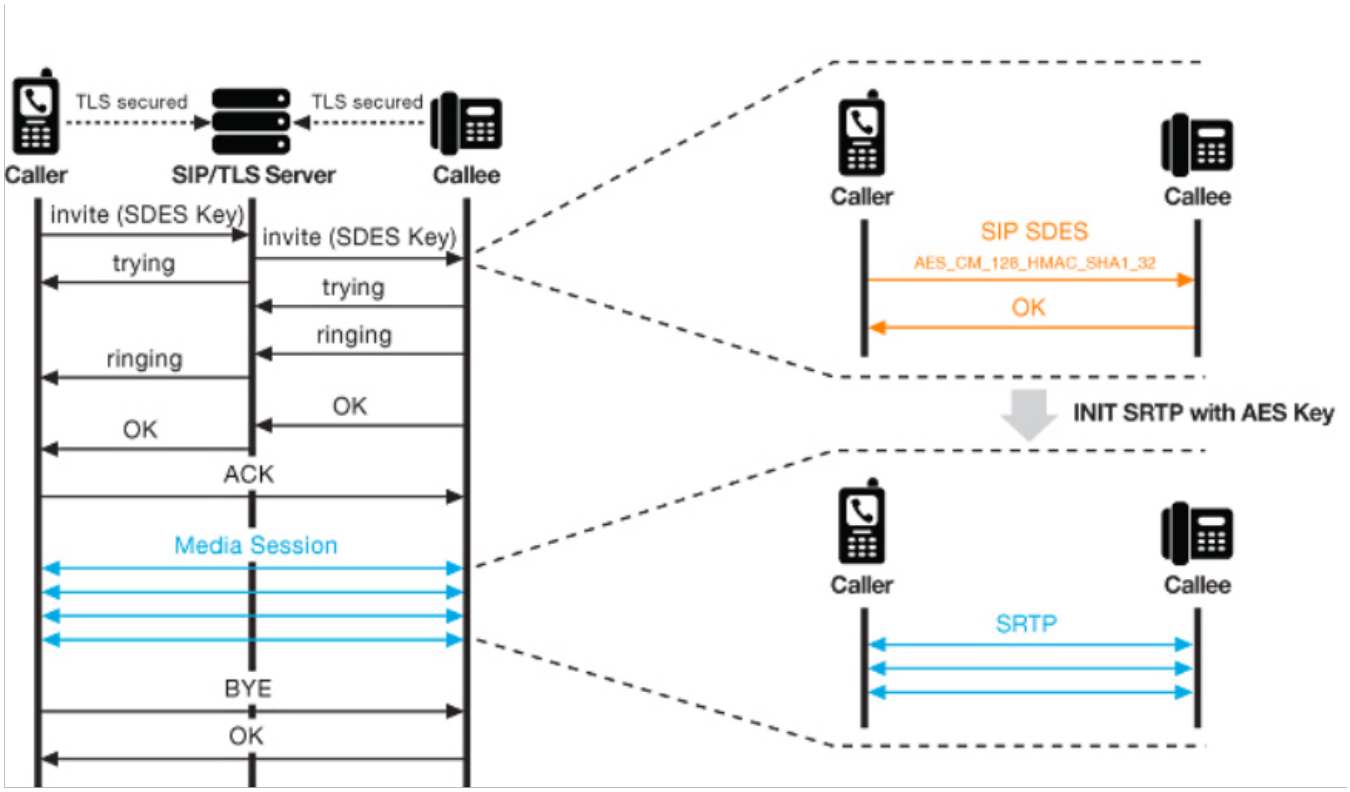
[BLACKBERRY] Do I really need to use my operator APN?

Is it required to use operator APN?

Enterprise Voice Security Suite uses two separate communication channels:

- **SIGNALING** protocol: used to initiate and receive a call. It uses SIP protocol, transported over TCP in a TLS secured tunnel
- **MEDIA SESSION: it** is the actual audio flow. It uses RTP protocol, transported over UDP, encrypted using SRTP. UDP is the same protocol used to transport video streaming



Over mobile network, a PDP context is required to open an IP tunnel to public internet (see GPRS Core Network)
Blackberry devices use an overlay network from RIM (both with MDS or BIS-B transport): your device has an active PDP context to this 'sort of' VPN to RIM infrastructure and, from there, exit to public internet.
This explains why, in europe, blackberry devices appear to have a UK IP address: even if you are in Italy, on an italian mobile operator, your blackberry traffic is routed through UK RIM servers.
This 2-layers network configuration add complexity and make performances poorer: if RIM infrastructure experience overload, you also have bad network performances, even if your mobile operator network is working fine.
In addition to this contraint, RIM infrastructure can handle only TCP traffic, but not UDP.
Since no UDP traffic can flow over RIM network, a new PDP context it is required for media session and opened on the fly, to connect your device directly to public internet, via an IP tunnel that can transport UDP.
The recommended configuration for PrivateWave is to use DirectTCP transport not only for media session, but also for signaling.