

SideBridge-Iridium Communications Module



General Description

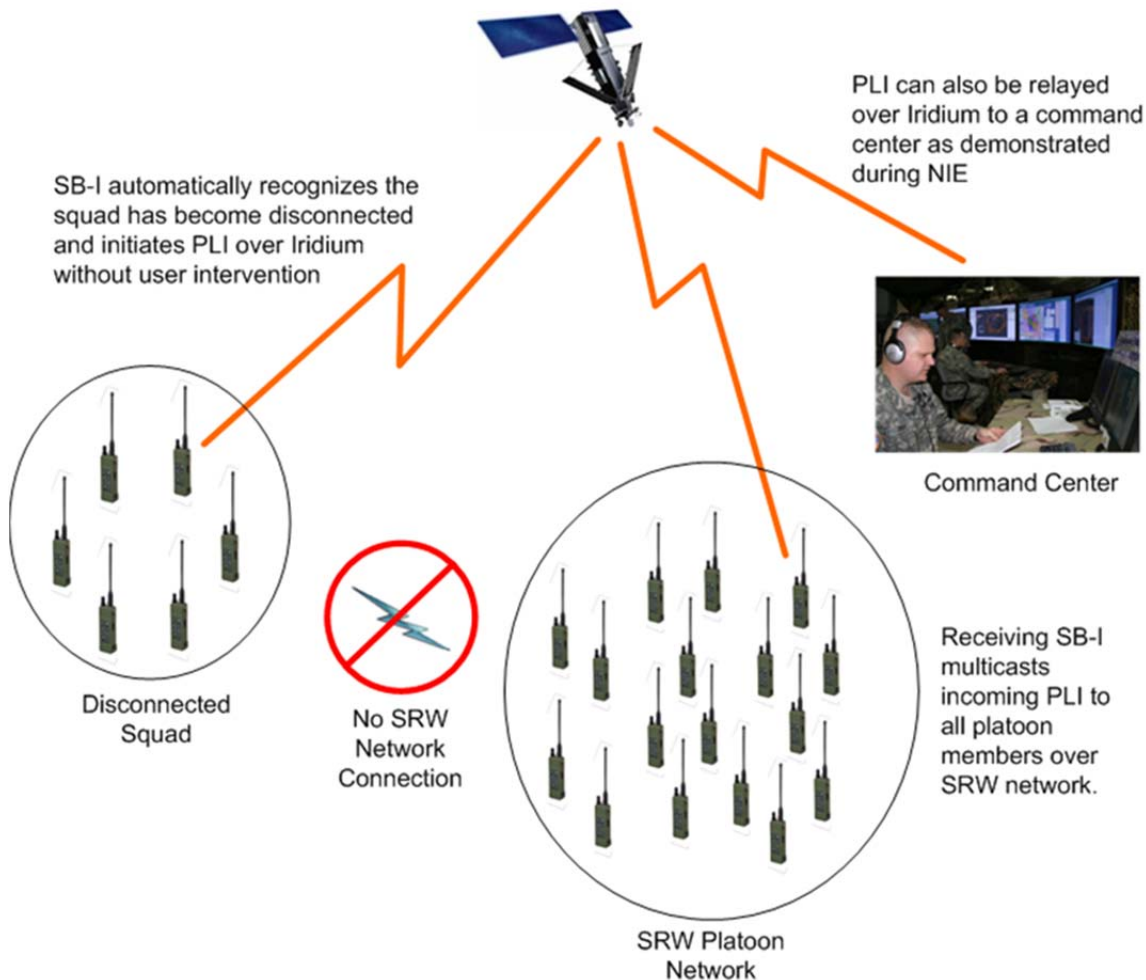
The SideBridge Iridium module connects directly to a tactical radio such as the PRC-154(A) Rifleman Radio and detects status and configuration of the radio network and Position Location Information (PLI). When PLI transfer is not possible due to the radio range or radio failure, SideBridge Iridium automatically sends PLI data through the Iridium satellite network. By making use of the worldwide Iridium satellite coverage, the SideBridge Iridium module provides an intelligent, reliable backup for Blue Force Tracking (BFT).



Rifleman Radio with SideBridge-Iridium

SideBridge-Iridium Relayed PLI

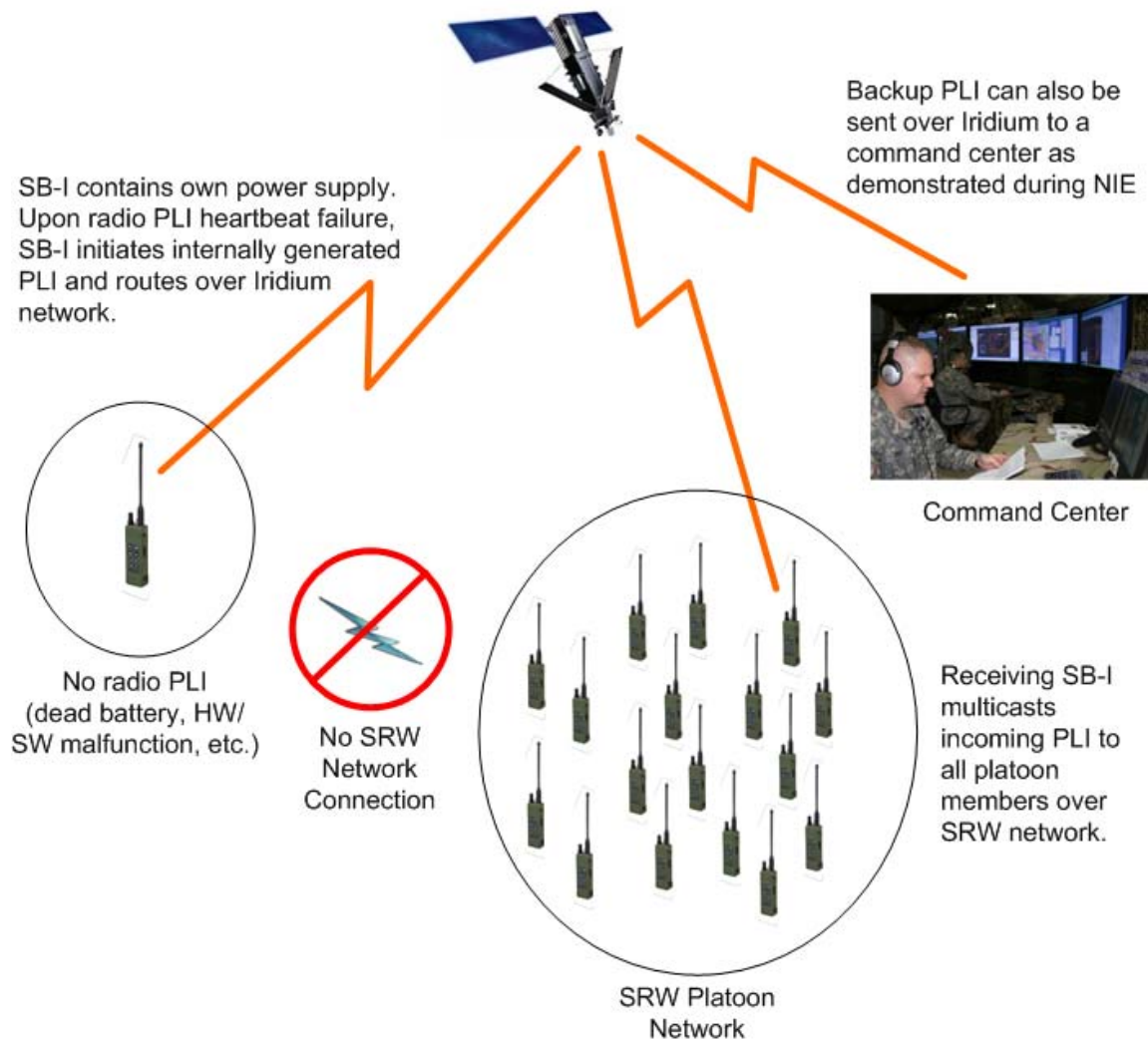
The SideBridge-Iridium (SB-I) module monitors the radio PLI and detects when a squad or squad member becomes disconnected from the radio network. SB-I will then relay PLI from the radio and/or from all other local radio PLI through the Iridium satellite network as Short Burst Data (SBD) messages. The SBD messages may be addressed to other squads and the command center. PLI messages received on an SB-I module over the Iridium network will multicast the PLI to the other radio nodes within range of the network (as it would with radio broadcast PLI).



SideBridge-Iridium Relayed PLI

SideBridge-Iridium Backup PLI

SideBridge-Iridium can provide reliable backup PLI as it contains a GPS receiver and back-up battery. The module monitors and detects PLI or power failure within the radio. When the radio is no longer able to generate PLI, the SB-I module will compute PLI from its GPS receiver, use internal power if necessary, and transmit the PLI to the Iridium network as SBD messages. The module sends PLI based on pre-programmed configuration data or default to the radio PLI configuration settings. The internal SB-I battery can be charged separately and the charge will be maintained while connected to a powered radio and is only used when the radio loses power.



SideBridge-Iridium Backup PLI

SideBridge-Iridium Advantages

- Automatic detection of radio or EUD PLI broadcast failures
- Reliable BFT through relayed and back-up PLI transfer via the Iridium satellite network
- DoD Enhanced Mobile Satellite Service (EMSS) gateway directs PLI messages as needed
- FIPS 140-2 certification for secure PLI transfer over worldwide Iridium satellite network