

General Description

CRIPTOPER SCAP PROCIF for IRIDIUM is a portable secure voice communication terminal via IRIDIUM satellite network and based on a rugged PDA. The classification level is up to SP CONFIDENCIAL (equivalent to NATO CONFIDENTIAL). The terminal runs CRIPTOPER SCAP software (SCIP Crypto Application) and includes a PCMCIA crypto hardware module (PROCIF card) with anti-tamper measures that implements SCIP protocol, audio management and stores the crypto material. The vocoder used is MELPe. The community of interest formed by a group of terminals is managed by the CRIPTOPER CMAP PROCIF Management Centre running CMAP (Crypto Management Application) software that also includes a PROCIF card.

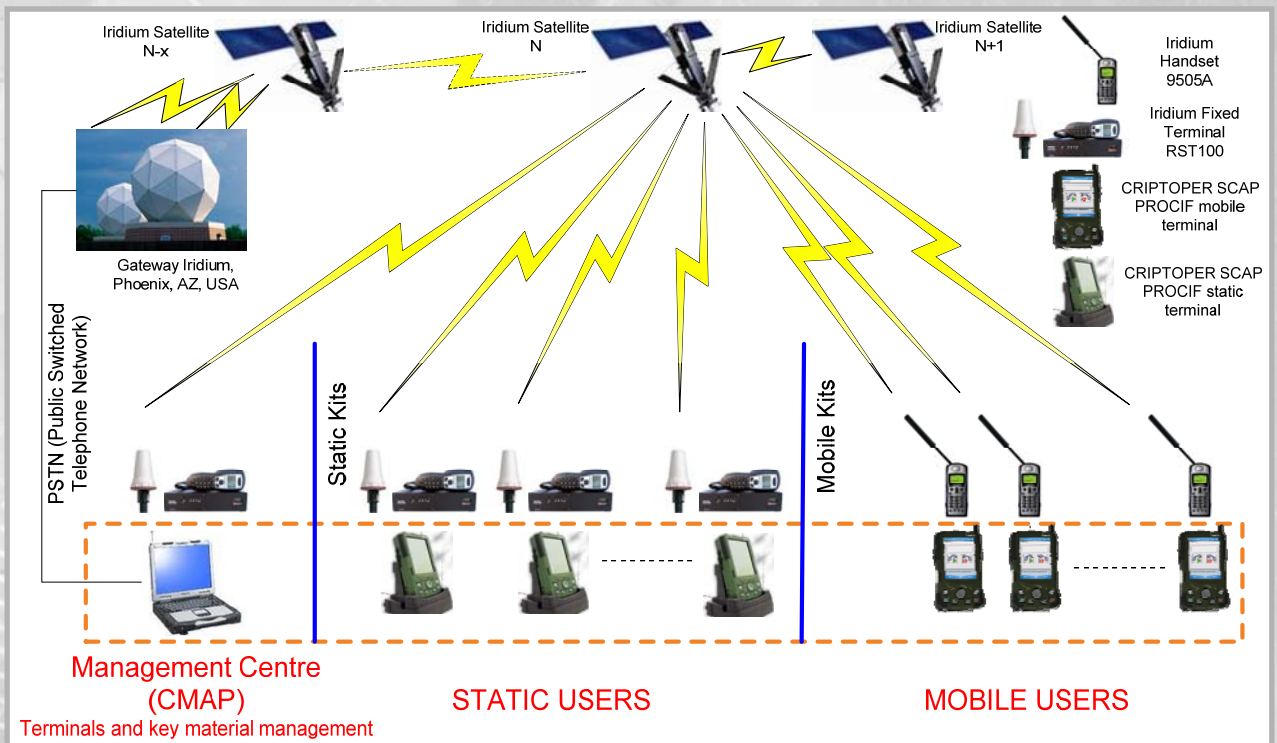
Key Benefits

- ❑ SCIP Protocol compatible
- ❑ Fast cryptographic resynchronization when the signal is lost
- ❑ Iridium narrowband channel optimization
- ❑ Low latency (about 1 second delay)
- ❑ Satellite handover without hanging the call
- ❑ Remote crypto management operations
- ❑ Contact list
- ❑ Easy to use interface
- ❑ Wind noise reduction microphone



CRIPTOPER SCAP PROCIF for Iridium

Application Scenario



Security Features

- SCIP protocol
- Approved to transmit up to SP CONFIDENCIAL (NATO CONFIDENTIAL)
- All ports are disabled except the serial port (communication with the Iridium terminal)
- The PDA can only run CRIPTOPER SCAP application (Kiosk mode)
- Modified PDA boot to prevent from PDA tampering
- Emergency zeroization (erasure) of the crypto material by the user
- Remote zeroization from the Management Centre
- Automatic zeroization when the PROCIF card is tampered (Crypto material + Firmware + Software)
- PKI (Public Key Infrastructure)
- Unique encryption key generated automatically between terminals for each call
- Remote certificates upgrade
- Remote CRL (Certificate Revocation List) distribution
- Suite B Algorithms
- X.509 v3 certificates

PROCIF Card Specifications

- Crypto Hardware Module
- Design based on FIPS 140-2 Level 4
- Anti-tamper measures
- PCMCIA Type II form
- Implements SCIP Protocol
- MELPe Vocoder (2.4 kbps)
- True Random Number Generator (hardware)
- Firmware and Software upgradeable
- 2.5 mm Ø – 4 poles audio connector
- Speaker impedance: 32 Ω
- Weight: 60 g
- Hosted by the PDA and controlled by the CRIPTOPER SCAP Software running on the PDA



PROCIF card (Crypto hardware module)

Technical Specifications

- Dimensions: 150mm x 105mm x 33mm (including the audio connector of the PROCIF card)
- Weight: 645 g (PDA + PROCIF card + headset)
- Temperature Operating Range: -20 °C to 50 °C
- Humidity Operating Range: 0% - 95%
- Power: 10-30 V DC
- Battery: Lithium-Ion (3,6 V – 3,9 Ah rechargeable)
- Battery life – Standby: 200 hours (2 batteries x 100 hours / battery)
- Battery life – Operating: 11 hours (2 batteries x 5,5 hours / battery)
- Compatible with Iridium 9505A handset and Beam RST100 fixed terminal.

Technical Standards

- EMI/EMC – MIL-STD-461E & MIL-STD-461F
- Environmental tests – MIL-STD-810F:
 - Method 501.4 Procedures I & II (Temperature)
 - Method 502.4 Procedures I & II (Temperature)
 - Method 514.5 Procedure I Cat. 20 (Vibration)
 - Method 516.5 Procedures I & IV (Shock)
 - Method 507.4 (A/A/S) (Humidity)
 - Method 506.4 Procedure III (Rain)
- IEC 60529 - IP 65
- TEMPEST SDIP-27 Level A compliant

PDA Specifications

- Microsoft Windows Mobile.
- Display 4" (480x640) sunlight readable transfective TFT LCD
- Resistive Touch Screen (works with gloves, stylus...)
- Magnesium case.
- Internal backup battery to sustain data while swapping primary battery (100 mAh Lithium-Polymer)

Product Configuration

- Two different kits:
 - Mobile kit (P/N 103EQ100010)
 - Static kit (P/N 103EQ100000)
- Accessories:
 - Transit case
 - Carrying pouch (only Mobile kit)
 - Spare battery (only Mobile kit)
 - PDA cradles (only Static kit)
 - Serial cable (connection with Iridium terminal)
 - Battery charger (AC adaptor)
 - Battery charger (Vehicle adaptor)
 - Headset with wind noise reduction
 - Stylus pen
 - Iridium terminals not included in the kits



CRIPTOPER SCAP PROCIF for Iridium Mobile Kit

