

# The first truly independent TETRA crypto solution



**SECTRA**

# The flexible crypto solution for your public safety organization

Sectra is a leading supplier of voice crypto products to European government authorities and defense departments. Sectra's crypto solution for TETRA communications ensures a secure and efficient cooperation for public safety organizations.

## Smart Card based end-to-end encryption

The TETRA crypto is a Smart Card based solution for end-to-end encryption between terminals in a TETRA network. Sectra has developed this crypto for users of the Swedish public safety network (RAKEL) in close cooperation with the Swedish Defense Materiel Administration (FMV). The security solution is designed to be used with various TETRA terminals in emergency cooperation situations.

## Add security to your TETRA system

Sectra's security solution with "crypto on Smart Card" makes it possible to add security to your existing TETRA network. You can keep the TETRA terminal already in use and choose any TETRA brand or vendor you like.

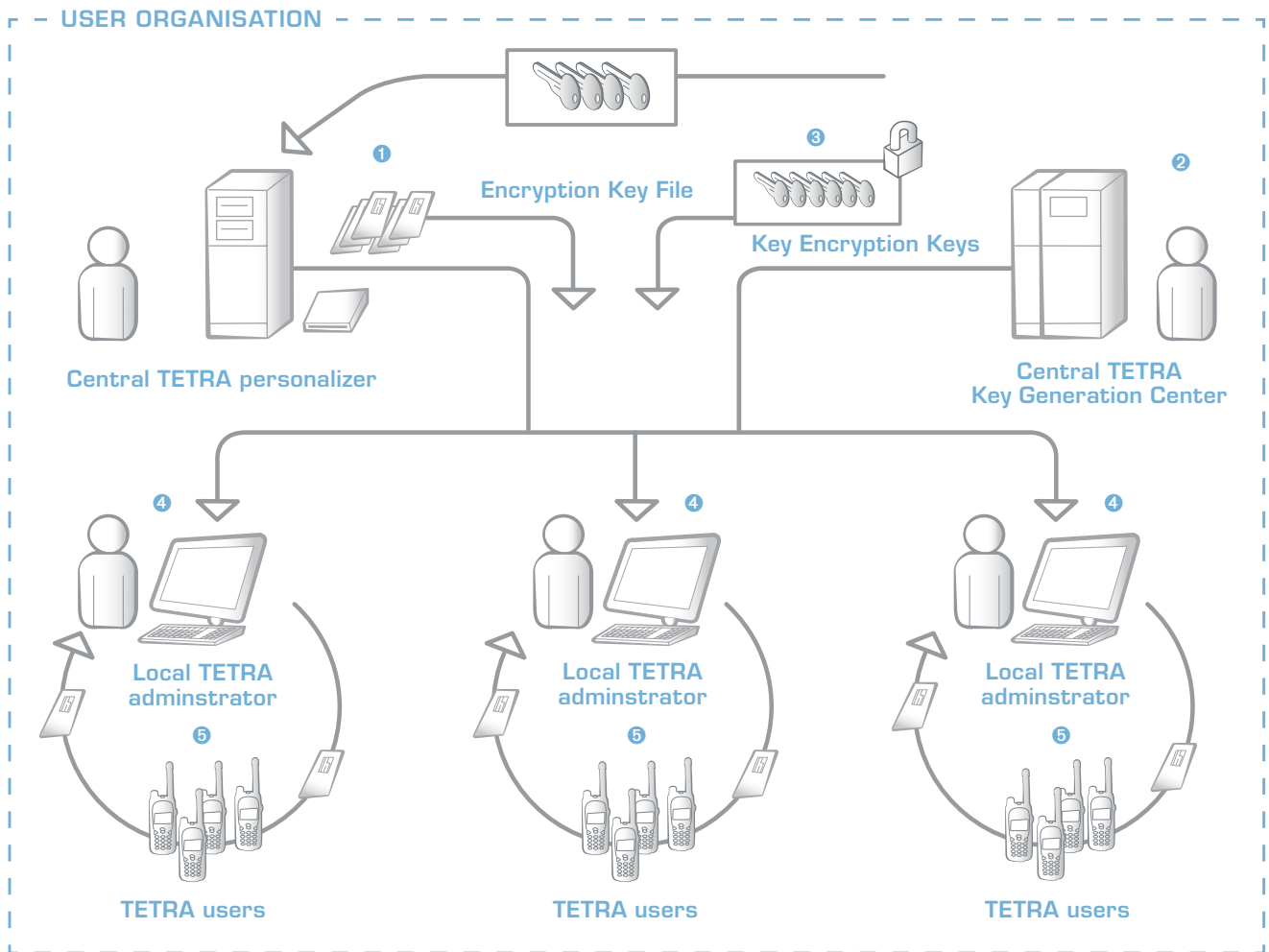
## Sectra TETRA crypto users

The flexible TETRA crypto is for such public safety organizations as:

- Police
- Coast Guard
- Customs
- National Rescue Service Agencies



## Sectra's TETRA crypto system overview



❶ The TETRA crypto Smart Card is delivered with PIN and PUK codes and an individual Key Encryption Key.

❷ The Crypto Custodian, who can be the same person as the Central TETRA personalizer, generates a set of keys to be used. These keys are protected with the user specific Key Encryption Key.

❸ The protected keys are sent to the Local TETRA administrator.

❹ The Local TETRA administrator in the public safety organization configures the Smart Card with a number of associations defining what Key Series will protect which TETRA user. Based on the configuration information, the Smart Card will be loaded with a number of keys valid for a period of time.

❺ The TETRA terminal informs the Smart Card about the current date and the corresponding key will be activated. When the Smart Card needs to be updated with keys, the Local administrator can easily re-enter the Smart Card in the Administrator Application and refresh the configuration and keys.

## Key generation, an essential element in secure communications

Key Generation is performed by using the Sectra's Key Generation Center (KGC). You can choose to operate it centrally and then distribute the encrypted keys to local units for secure downloading to the Smart Card.

For more independent operations, it is also possible to use the KGC locally to generate a specific set of keys known only to a small number of users.

## Easily update with new keys

The Smart Card is easily updated with keys from the Administrators Application. The validity period is a policy issue and can be set from 1 day up to several years.

The keys are only exposed as clear text keys (Red keys) when generated by the KGC and inside the highly protected Smart Card.

## Keys with expiry dates

Based on the time and date information from the TETRA terminal, the Smart Card will automatically activate the correct key to use. It also deletes expired keys.



*”The TETRA crypto solution from Sectra is designed for maximum user-friendliness. The security is almost invisible for the user and easy to manage for the administrator.”*

## Technical specification

<b>Security level</b>	AES algorithm with 256-bit keys More than four concurrent algorithms can be implemented.
<b>Keys</b>	The Smart Card is easily updated with keys from the Administrator Application. Key generation is performed by the Sectra's Key Generation Center (KGC).
<b>Physical &amp; electrical interface</b>	Supports Recommendation 08 from the TETRA Association. This means that the Sectra TETRA crypto can be integrated in virtually any terminal on the market. All major terminal manufactures either support or will be supporting this recommendation.
<b>Performance</b>	Power consumption less than 10 mA in operating mode.
<b>Smart Card configuration</b>	USB-connected Smart Card reader

“*Sectra's TETRA crypto can be used with any TETRA terminal supporting recommendation 08 from the TETRA Association's Security and Fraud Protection Group (SFPG).*”

### **Sectra protects EU communications**

Sectra is a one of the leading players in the market for secure communications. The company has developed crypto products for Swedish defense and government customers since the 1980s.

Today, Sectra has established cooperation with national security bodies in several European countries as well as leading EU organizations.

Sectra's voice encryption customers are found in more than half of all EU member states.

With core expertise in encryption and focus on strong security solutions, Sectra contributes to protecting the transmission of classified information within Europe.

# SECTRA

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