



## 5 THINGS YOU NEED TO KNOW

### When investing in a new radio communication network

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Purchasing a radio communication network is a major decision. There are five important considerations that a potential buyer should look at before making the decision to invest:

- Does the chosen technology affect the cost?
- How best to compare the offers?
- What are the financial consequences if I opt for a simple solution?
- What about the future?
- How to know whom to trust?

This document gives an answer to these five questions.

## When investing in a new radio communications network

### Choose a proven technology provided by many suppliers

When considering an investment to technology, it makes sense to limit your risks. In radio communications, TETRA is an open standard and the first TETRA systems have been in operation for longer than a decade. There is a wide range of TETRA products available in the market.

There are several suppliers in the TETRA infrastructure (comprising of network elements) market and in the radio terminal market. In other words, companies have been competing in these markets for a long time. This has led to shorter and shorter product development cycles: new and improved products appear quickly to the markets. This is a big benefit because it is possible to choose between several suppliers.

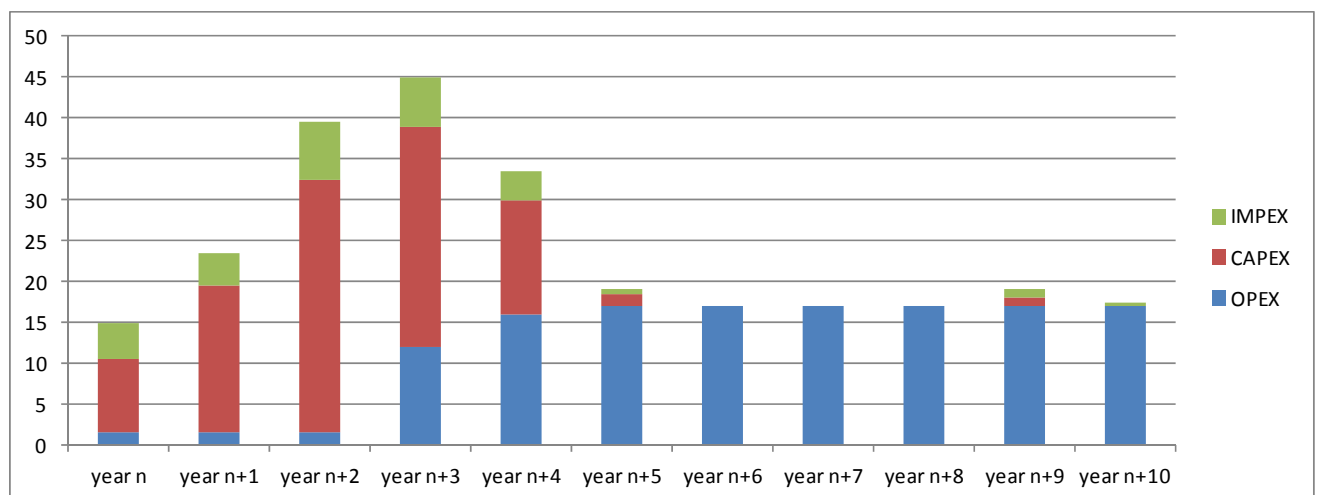
Compare this to solutions based on less developed standards with a new, much smaller market, or to non-standard, proprietary solutions which may lead the buyer to depend on a single supplier.

### Purchase price is not the whole picture

Buyers often see the price tag of the new system as the key consideration. What they should realise is that operating expenses can form as much as 80% of the total cost of ownership of a radio communications network over just ten years.

Buyers should ask the network suppliers about the total cost of ownership of the proposed systems. In other words, how much money needs to be spent on the system during its complete lifecycle. This will bring the hidden costs to light: cost of operating the network; cost of leased lines; prices of radio terminal upgrades; and so on.

Total cost calculations can reveal shocking differences between suppliers. And a smart buyer can save big money by choosing a vendor who can provide the system with the lowest total cost of ownership.



Example of a total cost of ownership graph, showing IMPEX + CAPEX + OPEX

CAPEX (Capital expenses). Network solution, infrastructure.

IMPEX (Implementation expenses). Cost of building the network.

OPEX (Operating expenses). Cost of keeping the network up and running.

### **A single network optimises your investment**

Communication solutions can be set up in several ways, and the buyer may consider buying one network for voice communications and another for data. However, this leads very easily to both operational and financial problems.

It is expensive to build and maintain two or more networks. A company may need twice the number of people, or pay twice as much for another company to operate the networks.

The problems are not limited to operating the network: users need to be trained to use two different networks. Integration to outside systems and databases requires double work. The list goes on.

In contrast, a single network for both voice and data optimises your investment.

### **Credible roadmap for the solution lowers your risk**

Choosing a proven, trustworthy supplier minimises risks. When the investment is for a technology solution such as a radio communication network, the supplier should be able to present a credible plan on how the solution will evolve. In other words, the supplier must have a realistic roadmap on the technical development of the network and on the financial consequences.

The supplier's size and market position also speak of their credibility. A small or medium-sized company may have a hard time to provide solution roadmaps with a span of five years or more.

In the TETRA market, some companies have long-term commitments with governments. This is a strong indication that their roadmaps are in order and they intend to follow them.

### **Choose a supplier with proven ability to deliver**

After a long and careful research of user requirements and thorough calculations of the investment, decision-makers come to final question: whom can we trust? Will the supplier deliver what is in the contract?

Sanctions can be included in the contract but money cannot completely cover the lost time and effort if the supplier fails to deliver. The network project will be delayed or it may completely fail.

Proven references and long-term commitments indicate that the supplier can be trusted to deliver. In time, in quality, and within budget.

## How to make the right choice?

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When considering the choice of a new radio communication system, the following technology-related choices give the best guarantee for your investment:

- Choose a mature, competitive technology
- Opt for a single network that gives you both voice and data.

### **TETRA is the reliable choice for radio communications**

Choosing a standard is not enough: a proper ecosystem is needed so there is real competition which leads to affordable prices. TETRA ecosystem includes a large number of suppliers.

There is a wide choice of TETRA radios in the market: handhelds, mobile terminals for vehicles, small-size handheld radios, covert solutions, data terminals, and embedded data modems. These products are very different from each other, available now and also available in several different frequencies in different countries.

In addition, the established interoperability testing scheme for TETRA products helps guarantee that products from different manufacturers work together as specified.

TETRA also has what it takes for a single-network approach: a rich set of voice communication features combined with integrated data capabilities. The original TETRA standard has been developed towards faster data, and TETRA Enhanced Data Service, TEDS, enables more data bandwidth to TETRA data service users. For example in the power and energy sector, the smart metering concept will benefit from TEDS services.

In addition, security measures in TETRA can be implemented without proprietary solutions.

### Ensure your investment

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When considering to purchase a new radio communication system, you can best ensure your investment by

- Choosing the supplier who can provide a system based on mature, competitive technology
- Comparing not only the purchase price but the total cost of ownership
- Opting for a single network
- Studying the suppliers' solution roadmaps and their credibility
- Choosing the supplier with proven ability to deliver.

Cassidian can provide radio communication systems that are based on the proven, mature TETRA standard and that have been designed to optimise the total cost of ownership.

A single TETRA system can provide a wide variety of voice and data services, and the TETRA systems from Cassidian have another big advantage: they can be shared for several independent user organisations. Cassidian also has clear roadmaps with proven commitment.

Cassidian has years of experience in delivering radio communication networks into operation to the satisfaction of customers worldwide. These are just a few examples:

- Nationwide BOS digital radio network for German authorities
- VIRVE, nationwide public safety network in Finland. In operation since 2002
- RAKEL, nationwide authority network in Sweden
- Transneft, communications along their oil pipelines
- KEPCO, Korean power company

Cassidian is committed to maintaining these systems for years to come. This is a guarantee for the continuous development of the solution.

Choose Cassidian and ensure your investment.

Find out more about Cassidian's radio communication solutions:

[www.cassidian.com/TETRA](http://www.cassidian.com/TETRA)

[www.cassidian.com/Claricor](http://www.cassidian.com/Claricor)

[www.keytouch.info](http://www.keytouch.info)

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