



Company profile
Products and Services
for Defense & Special Operations



Systems and Solutions for Communications

SyES expertise covers production, management and delivery of signal, with a solid background in broadcasting.

The Company has the capability to integrate complete systems and networks, with all required functionalities. To this aim, the direct production of transmitters, microwave links and antennas, all of them developed by SyES resources, is complemented by the appropriate additional components, identified on the basis of the specific application considered.

A qualifying experience

SyES has taken over the activities of system design and production of DMT group. Its action is therefore based on an heritage of technological competence ranking at the state of the art. An experience measured in over 10.000 transmission plants delivered, with the involvement in many advanced and prestigious projects.

Ready to support field operations

The know-how gained in digital and analog transmission enables SyES to address a wide variety of applications, also not strictly related with TV and Radio industry.

Considering the area of Defense and Special Operations, SyES skill can be profitably applied for example to the following subjects:

- General or dedicated broadcasting systems
- Content production, sharing and storage
- Multimedia Asset Management
- Connection with units and devices on the field

Also, SyES personnel is used to operating worldwide, speaking English or other languages and is totally qualified to take part to projects at multi-national level.

Certifications

SyES is certified ISO9001-200 as well as NATO AQAP 2110 and SoA RINA (certified supplier of the Italian Ministry of Defense).



Reference application: Field Broadcasting Systems

As pointed out, the involvement of SyES in Defense and Special ops could be quite diversified. In the following, to provide an example, field broadcasting systems will be presented, with reference to the equipment recently supplied to the Italian Ministry of Defense.

Functions

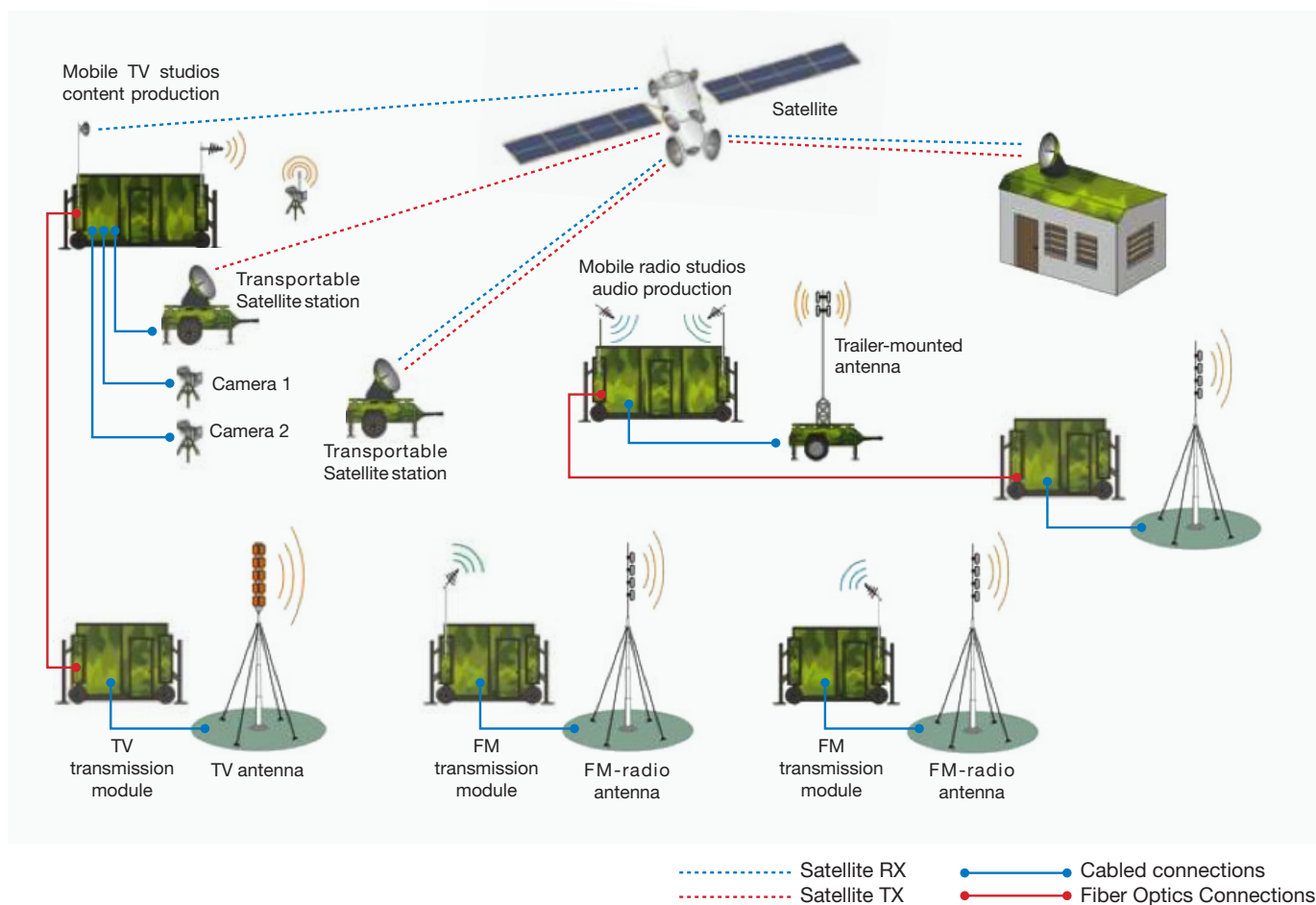
Field broadcasting systems are integrated, fast-deployment solutions for TV-radio and generalized communication to the population over the operations area (e.g. in the frame of PSYOPS operations). They can be equipped to carry out all the activities required to produce and transmit programs and messages.

- Production of LIVE events
- Management of A/V contributions from external units
- Automatic playout of a specified program list
- “On Site” broadcasting of programs over TV and radio, also with web access
- Sharing programs and contents with other transmission centers



Typical layout

The following picture outlines the architecture of a typical field broadcasting system:



Features and operational requirements

Further to providing excellent quality in A/V program production and transmission, field broadcasting systems comply with the specific application-related needs:

- Ease of transportation
- Immunity to rough handling and severe climatic conditions
- Easy and fast deployment
- Compatibility with a wide variety of conditions for energy and transmission frequencies

If required, the systems can be upgraded to handle encryption.



Organization and components

In accordance with the requirements, field broadcasting systems can be structured in a number of subsystems, based on professional and up-to-date components:

- Data relay: microwave, ethernet, satellite
- Asset management (MAM) with storage and coding capability
- Graphic processing, including titles and texts
- Studio equipment for Audio and Video production
- TV and Radio broadcasting systems
- Antennas

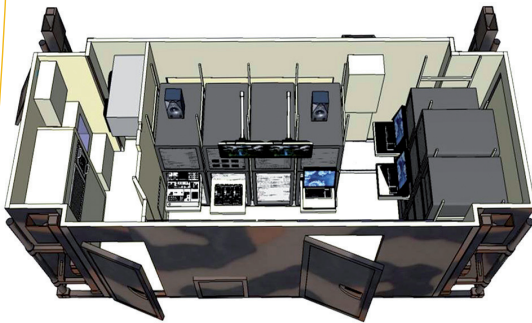
Implementation

The system parts are contained in shelters and case-mounted during transportation, in order to ensure efficient logistics and fast deployment even in critical conditions.



The shelterized modules organization corresponds to the functional units identified in the system layout:

- Radio production
- TV production - content management - playout
- FM broadcast unit
- TV broadcast unit
- Trailer-mounted extensible antenna



Open to developments

The architecture of field communication systems delivered to Ita MoD provides the basis for many interesting evolutions and functional add-ons (reach-back included). SyES has demonstrated its capability to take charge of their development in every aspect.



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