


EasyLINK



Tenix
communications

An aerial photograph of a park featuring a large lake, green lawns, and modern buildings with distinctive curved, metallic roofs. A few people are visible walking on a path near the water. The sky is blue with scattered white clouds.

The **EasyLINK** is a platform designed to enable high-throughput and multi-frequency radio communications for full-duplex IP video and data applications on terrestrial and on-the-move scenarios.

The system constitutes in two (or more) single units of less than 5kg each, which can communicate in point-to-point and/or point-to-multipoint in a STAR/MESH topology, with self-aggregating and LOS/NLOS (non-line of site) capabilities;

Each device can transmit up to 100Mbps of voice/video/data and up to 50 km, and can be customized for Nomadic or On the Move applications, the units embed a series of features such as 2/3G gateways (BTS) Video Encoders/Decoders, Wi-fi, Ethernet, etc.

KEY POINTS:

Extremely customizable (fixed version, transportable/nomadic, backpack, for CoTM/vehicle/helicopters etc)

High throughput – long distance – lightweight

Multi-frequency (from 300Mhz to 6Ghz)

Fully scalable and easy to integrate with all the other Temix solutions and other technologies.

Low-power and energy self-sufficient (battery powered)

Nomadic Mode or for Communications on The Move.



EasyLINK PLATFORM SCENARIOS

The platform can be deployed in Urban and Non-Urban/nation-wide scenarios based on distance and areas to cover.

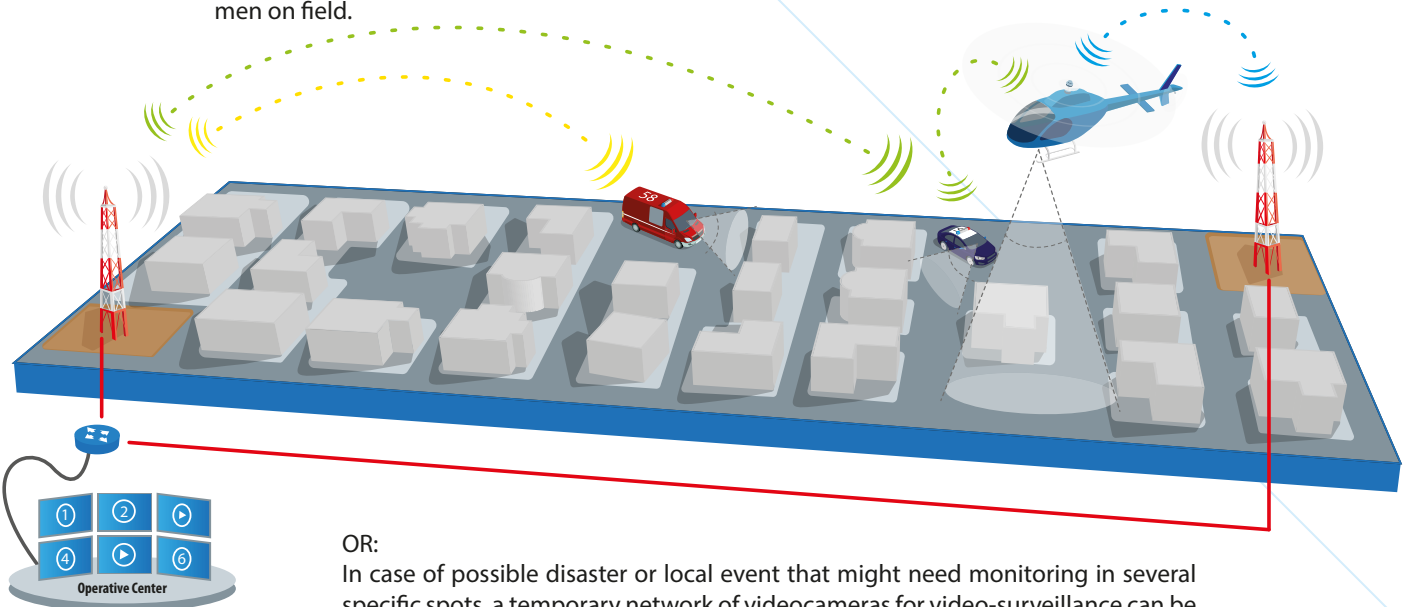
Depending on different needs and on the available local infrastructures the platform can be configured as Nomadic - INCS (Integrated Nomadic Communications System) and/or as On The Move – ITC oTM (Integrated Tactical Communications on The Move).

URBAN SCENARIOS

In Urban Scenarios the EasyLINK platform is extremely suitable for homeland security and safety;

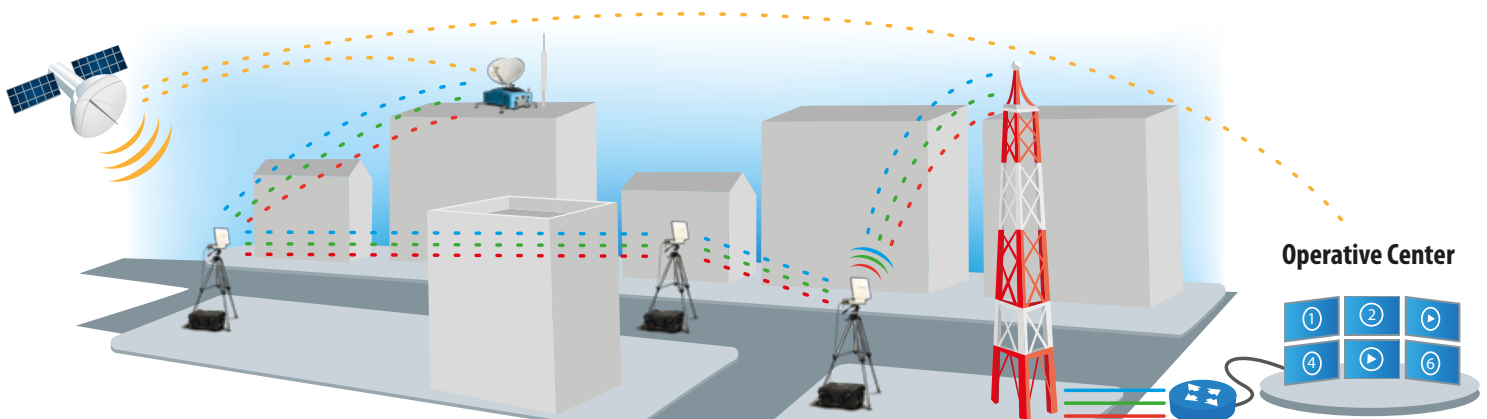
The platform is able to provide tactical field communications with an extremely rapid deployment, high reliability and with a system that, if needed, is entirely remotely controllable. Some examples of applications are:

Immediate deployment of a voice and video communications system over a small urban area (30-50km wide). This can be done with several units placed on Vehicles, Helicopters and on men (with backpacks) allowing the headquarters to exchange time-critical information with men on field.



OR:

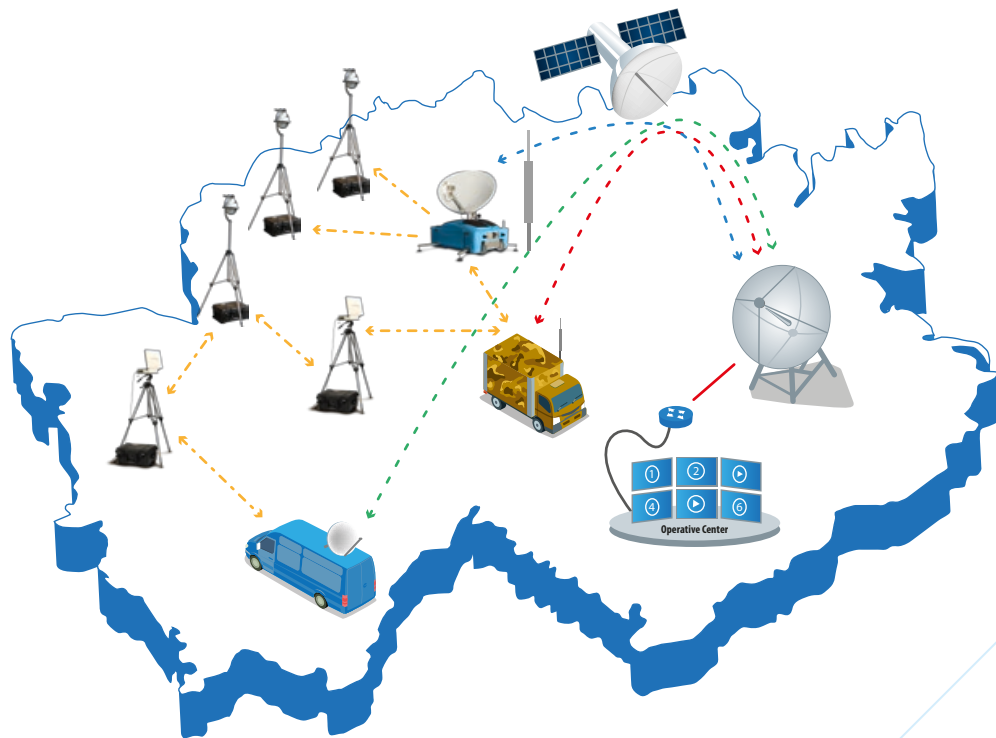
In case of possible disaster or local event that might need monitoring in several specific spots, a temporary network of videocameras for video-surveillance can be installed and connected to HQ via EasyLINK as a preventive monitoring strategy. In addition to video also voice and data can be transmitted over the same platform, this would allow commanders to be able to talk to the HQ from each of the remote spots covered by the units.



NATION-WIDE SCENARIOS

with Nation-Wide scenarios we define the need of coverage for fairly wide areas, from sub-urban to nation-wide coverage.

To cover such large areas the system can combine wireless and satellite connectivity for both nomadic and “on The Move” connectivity to set up an immediately deployable communication infrastructure in any geographic area regardless to the local infrastructure and/or to the local limitations.



In these scenarios there might be the need to have boarder control devices and cameras in place, as well as temporary nomadic offices across the country as well as communications on the move for vehicles as well as men.

In this case all the devices are interconnected wirelessly or via satellite in an “ANY 2 ANY” topology and the coverage area can be up to hundreds (or thousands) of kilometres. To each EasyLINK terminal any additional device can be connected: Tetra, IP Phones, Laptops, videocameras, sensors, etc. Any EasyLINK can be connected to a satellite uplink as a gateway which can connect the EasyLINK to other similar units and/or to the HQ.

EXAMPLES OF POSSIBLE APPLICATIONS

Security

wireless cameras and sensor devices, located in small or vast areas, can be connected to customer HQs through (one or several) several EasyLINK devices (all also remotely controlled).

Emergency / First Aid

fire brigades and/or ambulance vehicles can talk and share real-time video and information from multiple viewpoints of disaster locations to headquarters.

Industrial

immediate deployment of customized solutions for voice and video communications as well as geo-location of vehicles in vast areas (such as overground or underground mines, refineries or for underground tunnel activities) in locations where no infrastructure is present.

Broadcast – the platform allows HD Video transmissions on the move or in locations not reachable with traditional uplink antennas, in addition to video transmission the units feature possibility for return video channel, IFBs – talk-back to studio, wireless internet to journalists etc.



Specifications Table

Radio

Frequency	Any frequency in 400MHz to 6GHz range
Radio Type	OFDM - TDD
Channel Bandwidth	5, 10, 20MHz
Output Power	Up to 33dBm(2 Watt) other available on request
Modulation	BPSK, QPSK, 16QAM, 64QAM
Sensitivity	-97dBm @ BPSK
Radio Capacity (Air interface)	Up to 50MBit (Up to 110MBit/s optional in PtP)

Data communication interface

Standard Compliance	IEEE 802.3 CSMA/CD	IEEE 802.3 CSMA/CD
VLAN Support	Based on 802.1q	Based on 802.1q
Security	Association protocol- SSID WEP 128, AES, IP level filtering 802.11b/g	IEEE 802.3 CSMA/CD Based on 802.1q Not Applicable
Wireless LAN	802.11b/g	802.11a/b/g option

Embedded decoder

Video Input	1 Composite (PAL or NTSC), 1Vpp/75 ohm or SDI
Compression	H264 SD & HD
Frame Rate	1 to 30 fps
Bandwidth	Configurable between 32KBit/s to 20Mbps
Audio Input - Output	Line (0dBm/600 ohm)

SERIAL DATA INTERFACE AND I/O	Electrical Level	Port 1 - RS232, RS485 optional
	Operating Mode	Transparent serial port supporting any async. serial protocol - Input/Output 3 dry contact
	Dry Contact	Inputs (48V AC/DC @ 100mA max)
ELECTRICAL - RU and BU	Power Consumption	45W up to 150W
	Input Power	DC 9 to 18 VDC
	Indicators (RU unit)	Power, Alarm, Net Activity, Wireless Link, Wireless Access Point, Wireless Link Quality (5 LEDs bar indicator)
MECHANICAL	Stowed Size	367x245x88mm
	Weight	4.5 Kg
ENVIRONMENTAL	Temperature (*)	Operational -20° to 70°C
	Operational Humidity	95% non-condensing
	Sealing Class	IP68



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