LiveU
PUBLIC SAFETY

LiveU Situational Awareness Solution for Fire Fighters

Fire Safety Forum 2025

PTS
www.pts.gr

Global Scale, Local Knowledge
150+ Countries and Growing

LiveU PUBLIC SAFETY

Main HQ	Regional Offices	
▪ New Jersey, USA	▪ UK	▪ Australia
▪ Israel	▪ Spain	▪ Japan

THE CARLYLE GROUP
GLOBAL ALTERNATIVE ASSET MANAGEMENT

FP FRANCISCO PARTNERS

Additional LiveU points of presence

EU: *Germany, France, Romania*
Middle East: *UAE*
Africa: *South Africa, Kenya*
APAC: *Hong Kong, India, Singapore, China, Philippines*
Latin America: *Colombia*

120+ partners across the globe

Proprietary and confidential

5,000+ Customers from Every Vertical & Growing

PUBLIC SECTOR

NEWS

SPORTS

ENTERPRISE

EDUCATION

Proprietary and confidential

LRT™ LiveU Reliable Transport

A video and audio delivery protocol developed over the past two decades by LiveU. LRT™ ensures rock-solid reliability over **cellular and other IP networks.**

LRT™ advantages

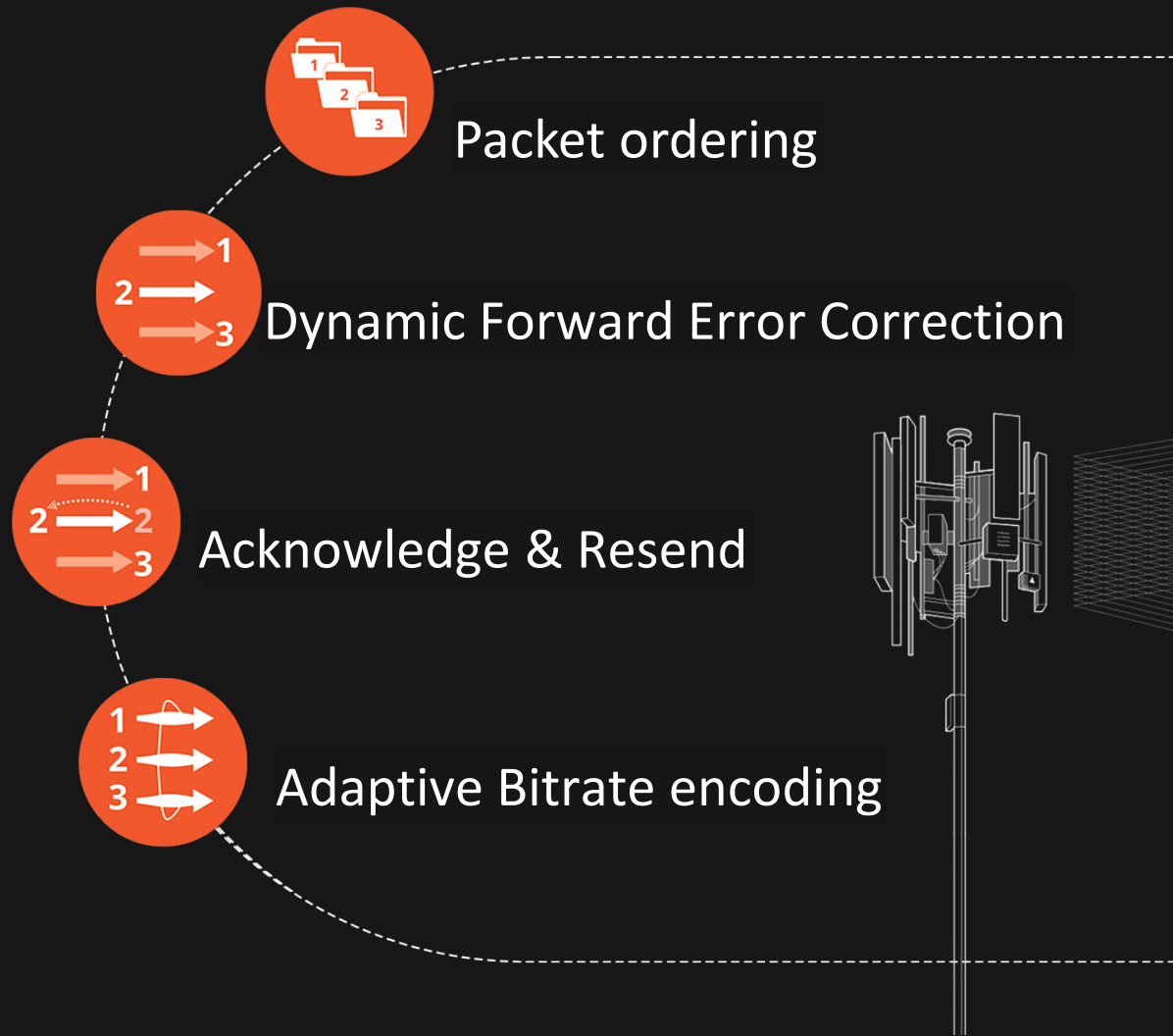
Dynamic network awareness

LRT™ continuously monitors network fluctuations and automatically compensates, maintaining a resilient live stream regardless of inevitable instability of network connections.

A tight protocol-encoder integration

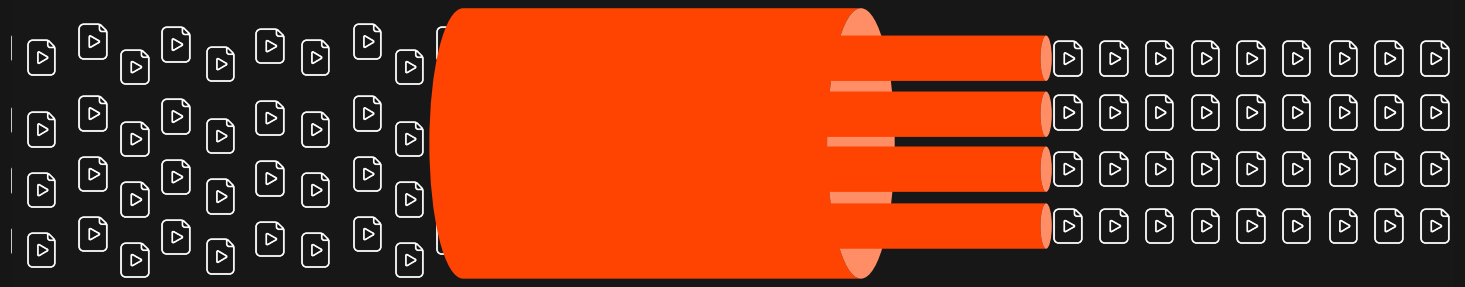
Due to the unique integration between LRT™ and all LiveU encoders, as bandwidth changes, LRT™ dynamically adjusts the video encoder's bitrate, optimizing the stream for the available bandwidth.

This ensures that data isn't overloaded, minimizing buffering and maintaining the best possible stream quality.



IP Bonding – Bonds multiple network connections into a single virtual larger connection

Source
(Field)

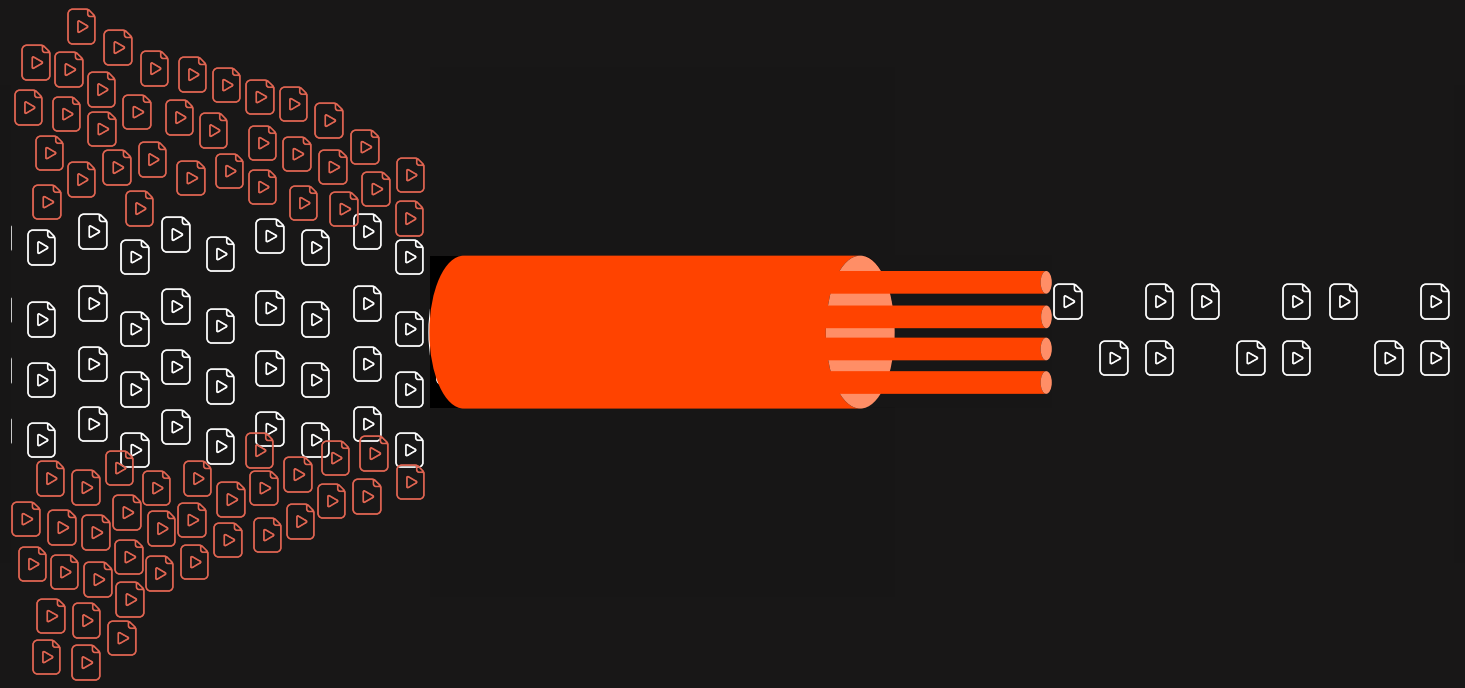


Destination
(HQ / MCC / etc)

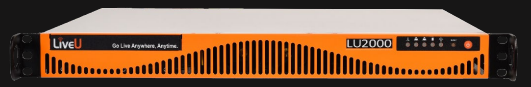
But... What happens when the network bandwidth shrinks?

Not all packet can go through, resulting in disrupted video and freezes

Source
(Field)



Destination
(HQ / MCC / etc)



LRT™ adapts the video stream to the available network bandwidth

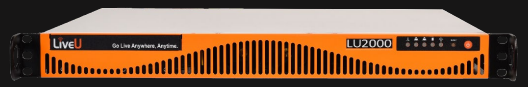
Source
(Field)

Destination
(HQ / MCC / etc)

LRT™ adapts the video stream to the available network bandwidth making sure the video will be received with no disruptions

Source
(Field)

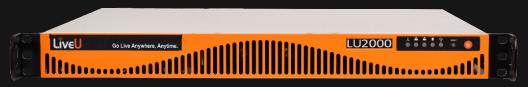
Destination
(HQ / MCC / etc)



… and it continuously does that

Source
(Field)

Destination
(HQ / MCC / etc)

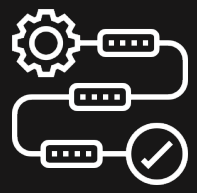


RELIABLE, REAL-TIME

VISUAL INTELLIGENCE

for Mission Critical Operations

Harnessing real-time video for instant visual intelligence



Improves decision-making process

Reduces response time

Improves coordination and collaboration

Increases operational efficiency

Enhances safety and security

Support for any use case

	Crowd Management	Surveillance
Special Response Team	Warrant service	Search & Rescue
Training	Mutual Aid	Community outreach

Trusted by 1000 agencies all over the globe

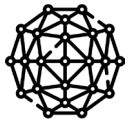
Real-time Reliable High-quality Video Transport and Distribution

Seamless video transport from any video source

LiveU PUBLIC SAFETY

A mobile solution that works everywhere with virtually any type of network, bonding all of them together

4G/5G

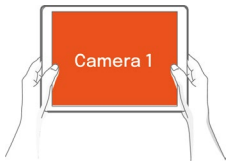


Mesh

Low latency transport to any destination

Command & Control

Mobile Command Center

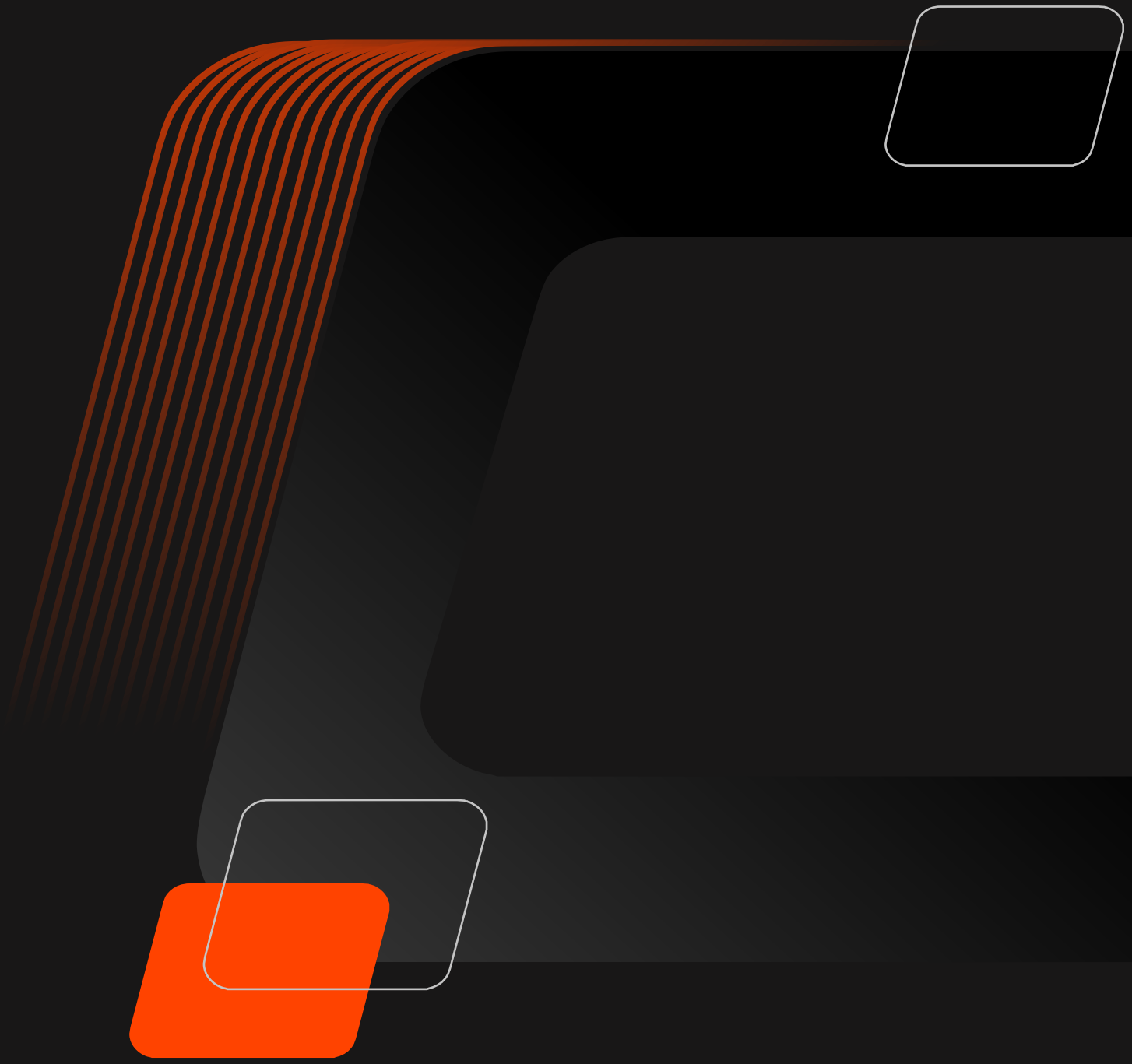


Portable devices

Interoperable with your existing VMS / CDN

Video Management System

The solution components



LiveU
PUBLIC SAFETY

LiveU Situational Awareness Solution Components

LU-REQON1 – HIGHLIGHTS

Transmit Video from any RTSP or HDMI Source

Small-sized
900g (2 lb)

6 network
bonding links

3-hours internal
battery

IP Input

HDMI Input

4 modems
included

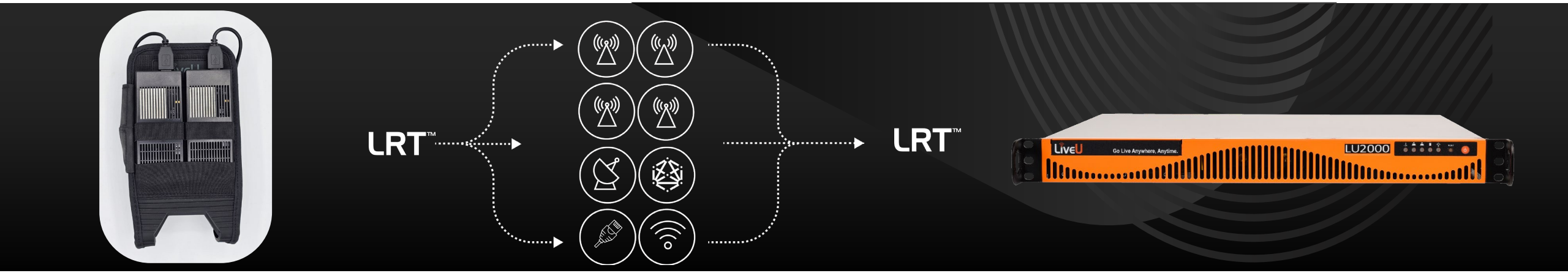
LiveU
PUBLIC SAFETY

Molle attachment portability

Molle attachment

LiveU
PUBLIC SAFETY

IP Bonding links & LRT™



6 network links

- 2x4G internal modems
- 2x4G external modems
- 1 Ethernet
- 1 Wi-Fi

IP Bonding

Splitting encoded video over **multiple operators and technologies** together, at the same time.

- Cellular
- SATCOM (Ka/Ku, BGAN)
- Wi-Fi

LRT™

A video and audio delivery protocol, developed by LiveU. LRT™ uses **Dynamic network awareness** and other techniques to ensure rock-solid reliability over cellular and other IP networks.

LiveU
PUBLIC SAFETY

LU2000 – Bonded Video Receiver

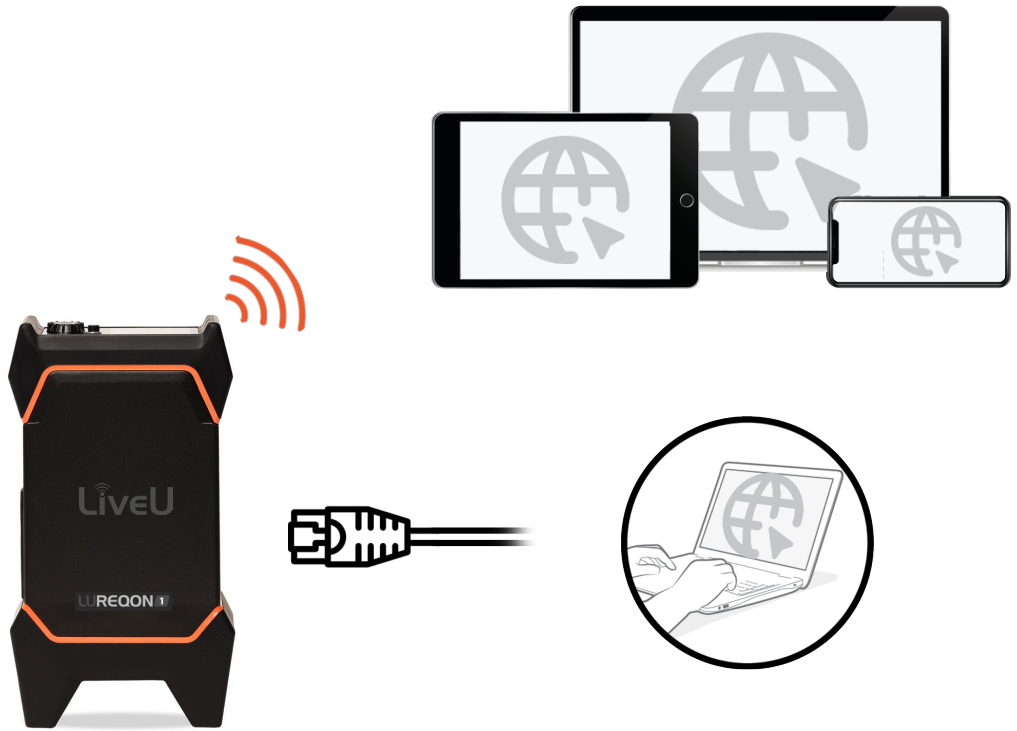
Receive, decode and playout any bonded video stream sent by LiveU's range of field units

- Can receive up to 4 simultaneous feeds
- Supporting multiple output formats:
  - Available in 3 SDI output configurations: 1, 2 or 4
  - SRT / RTSP / RTMP for IP streaming
  - MPEG-TS
  - NDI
  - Matrix
- 1U rack-mountable server
- High reliability with LRT™
- H.264 and HEVC decoding
- Full management and control via LiveU Central

LiveU
PUBLIC SAFETY

LiveU DataBridge

Resilient high-speed mobile internet connectivity in any location



A powerful WiFi hotspot or Ethernet-based internet connectivity to any device:

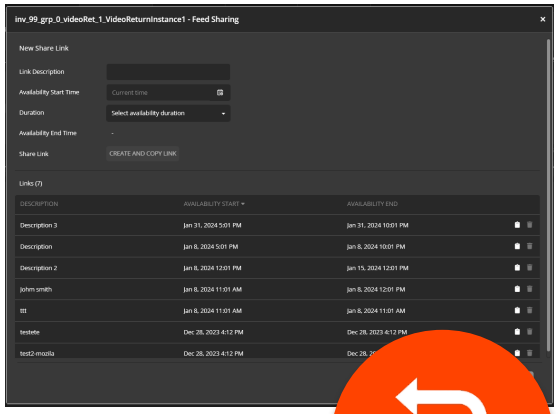
- Laptops
- Phones
- Tablets

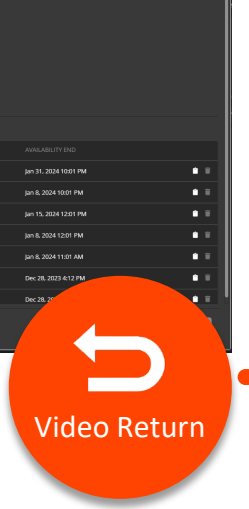
DataBridge bonds multiple networks

- 4G/5G cellular
- WiFi
- Ethernet

Video Return via Link

Give ad-hoc access to forces joining the operation

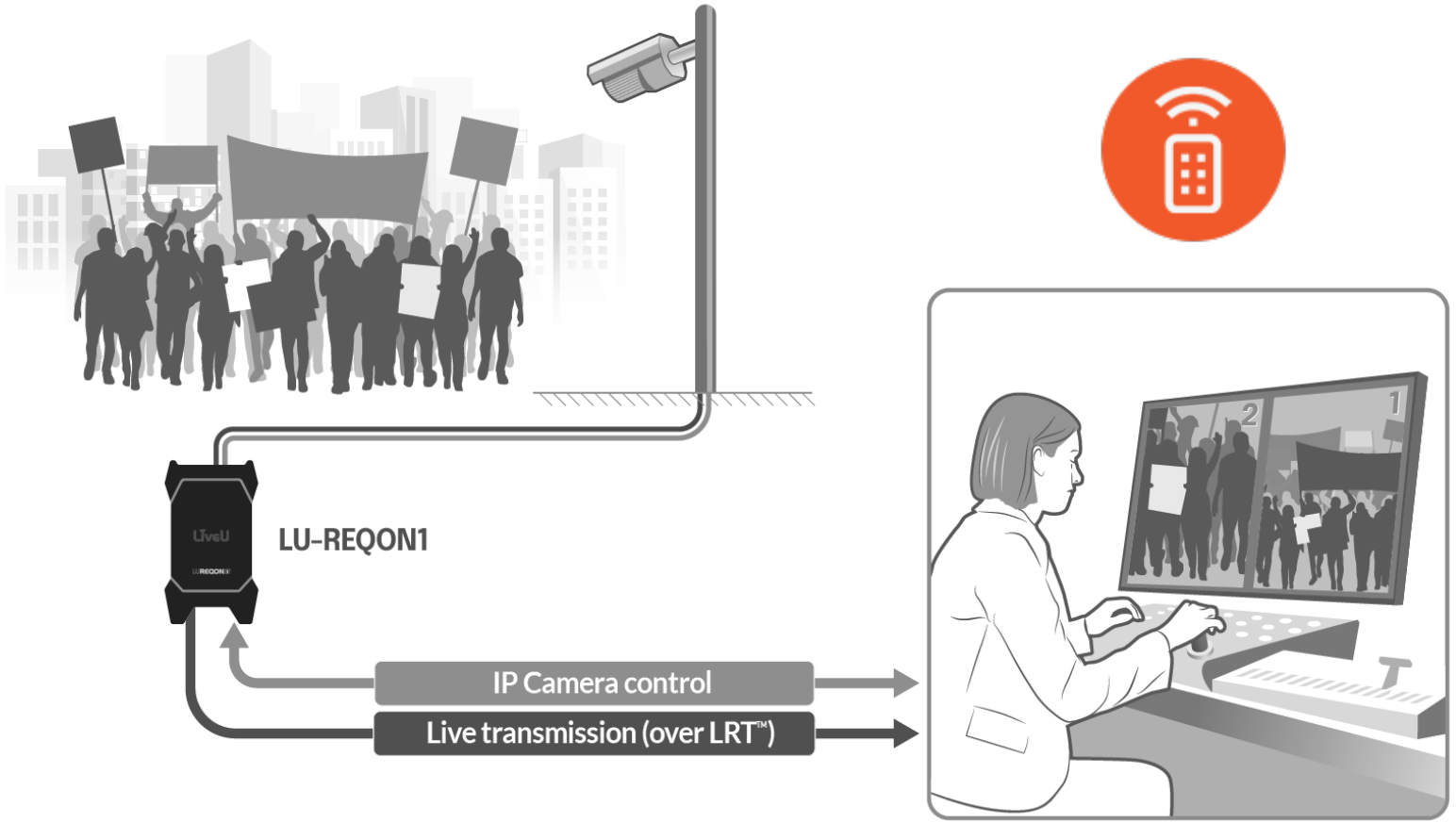




LiveU
PUBLIC SAFETY

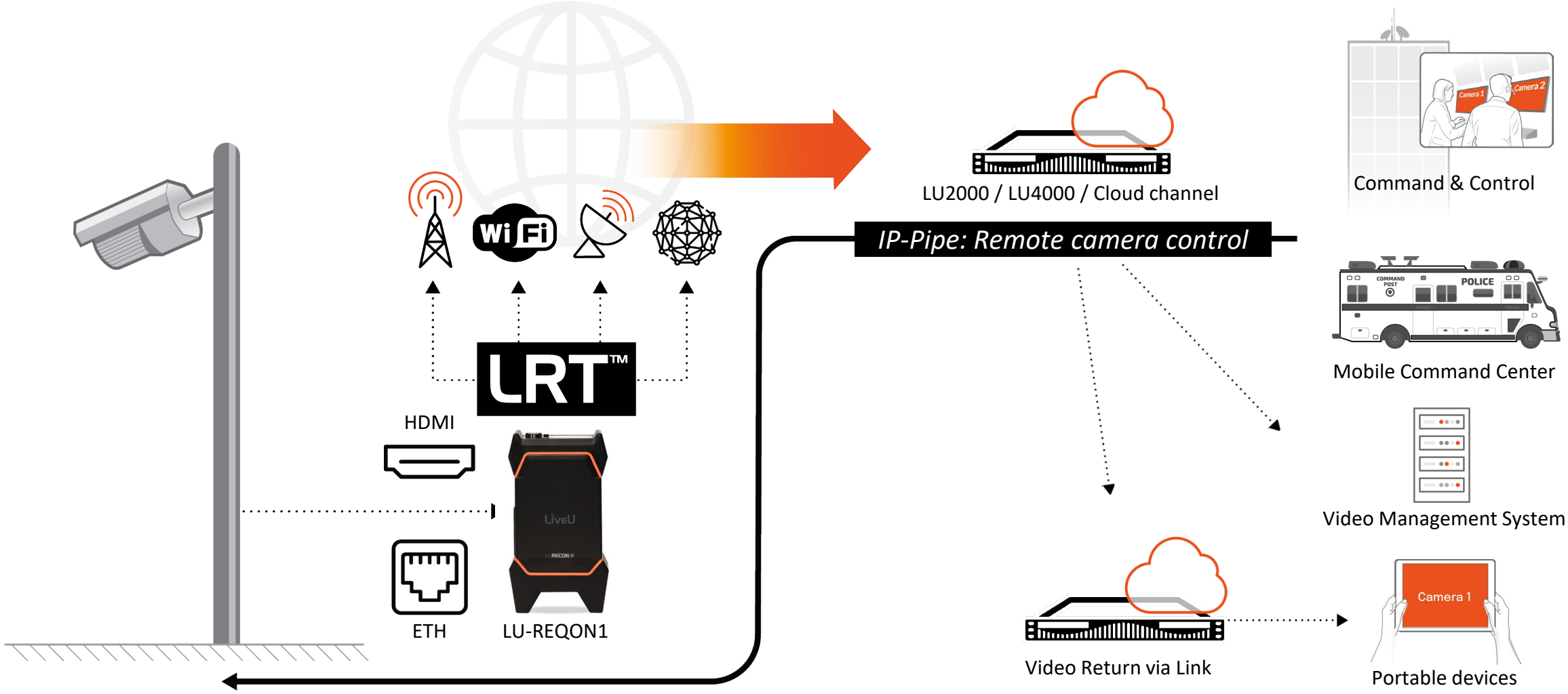
LiveU IP-Pipe

Remotely control PTZ cameras and other network-based equipment from your Command & Control center



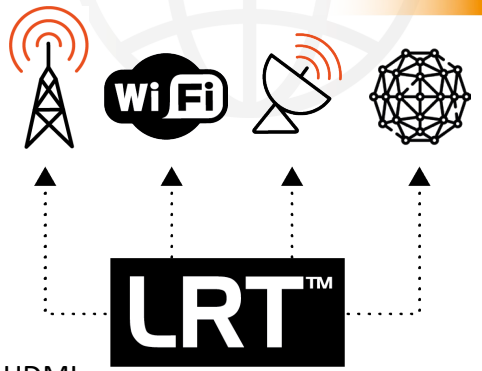
LiveU PUBLIC SAFETY

Example: Surveillance with Remote Camera Control using LiveU IP-Pipe



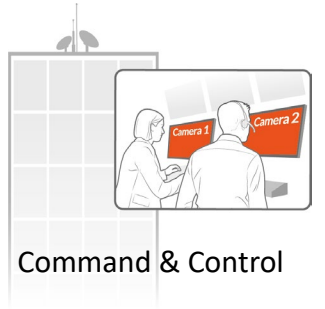
LiveU PUBLIC SAFETY

Example: Mobile Surveillance with Remote Camera Control using LiveU IP-Pipe



LU2000 / LU4000 / Cloud channel

IP-Pipe: Remote camera control



Command & Control

Mobile Command Center

Video Management System

Video Return via Link

Portable devices

LiveU PUBLIC SAFETY

Case Studies

Click to edit Master text styles

LiveU
PUBLIC SAFETY

Operational Field Exercise: Minoas 2024, Crete

The mission:

The **Ministry of Climate Crisis & Civil Protection**, the **Earthquake Planning & Protection Organization**, and the **Region of Crete** joined forces to improve coordination of services, the information gathering and evaluation processes and to train involved agencies/volunteers in case of earthquakes

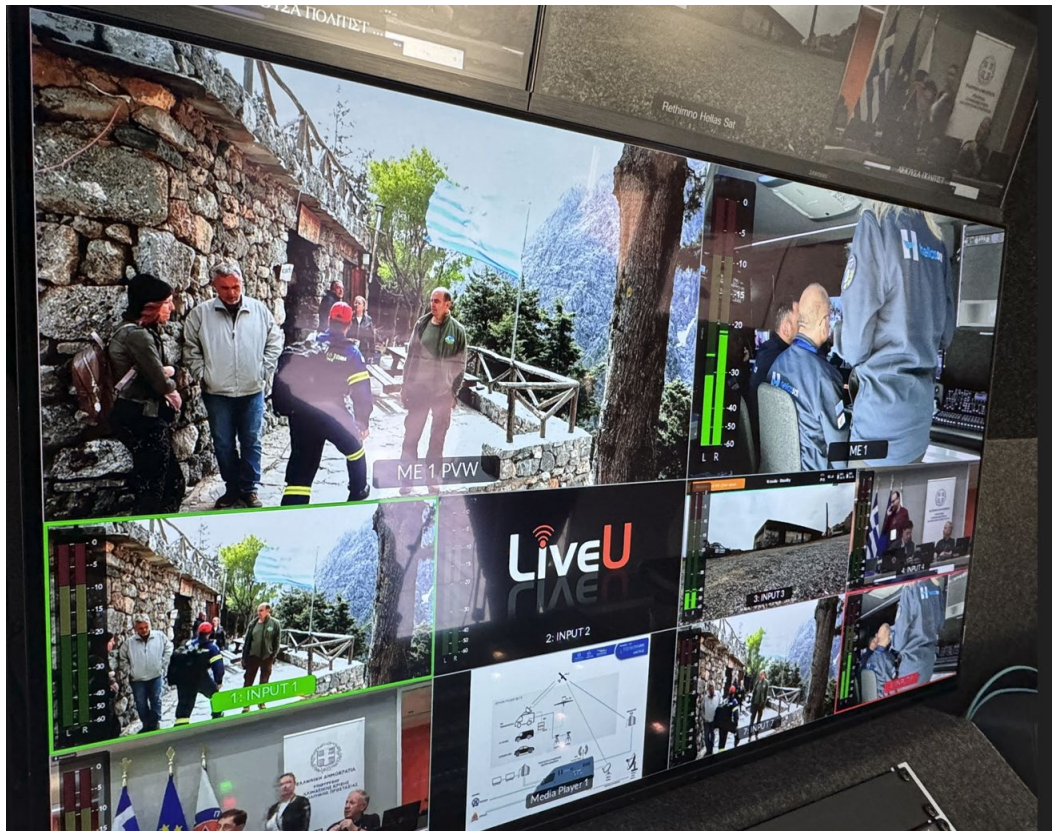
The challenge:

Live signals from multiple locations in the field had to be delivered in real-time and with minimal delay to a HELLAS SAT vans on site from where the signal was distributed to

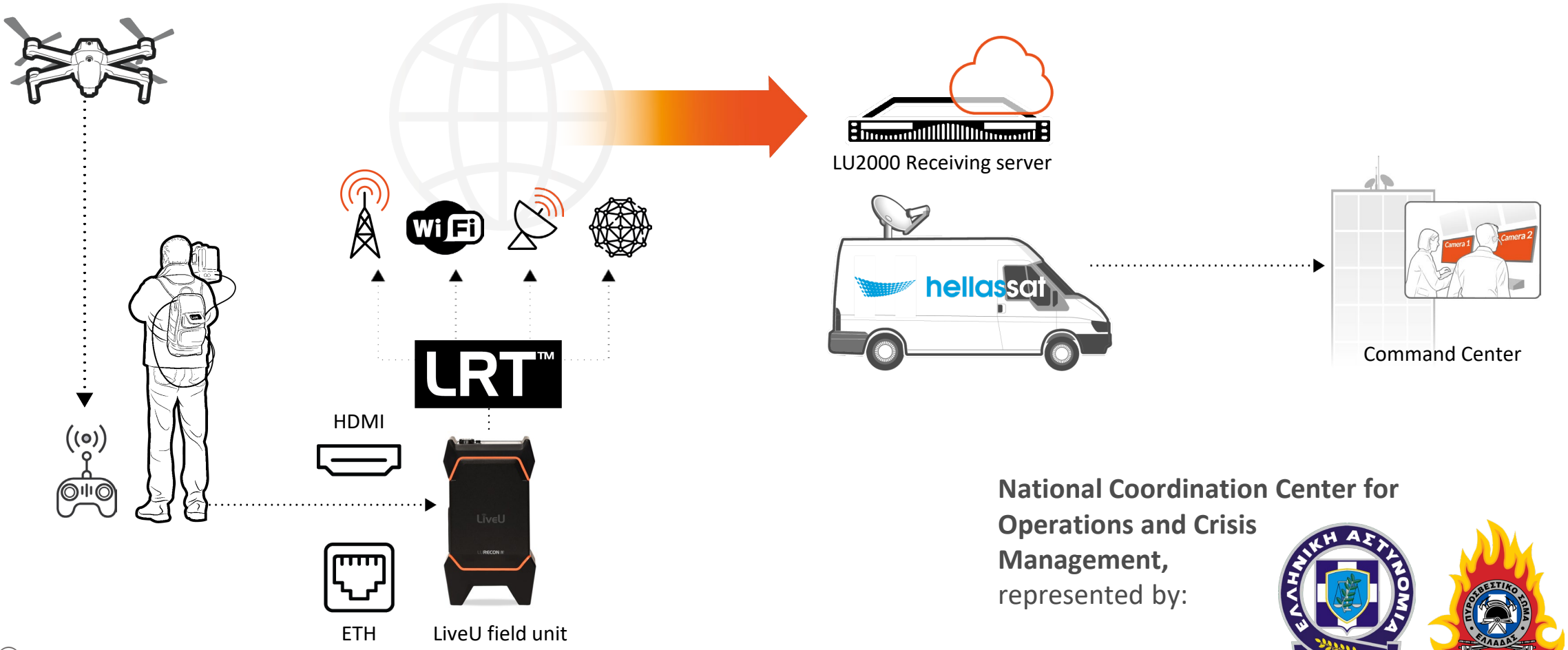
The solution:

The exercise was captured by ground-based cameras as well as drones which were connected to LiveU field encoders which transmitted the live signals using multiple bonded internet connections.

All LiveU delivered feeds were received by the HELLAS SAT vans using the LU2000 server



Operational Field Exercise: Minoas 2024, Crete



National Coordination Center for Operations and Crisis Management,
represented by:

LiveU
PUBLIC SAFETY

Rescue Services Case Study: SÄRF Fire Safety, Sweden

The mission:

Providing emergency services in six municipalities, including 25 fire and ambulance services.

The challenge:

Real-time situational awareness, fire and accident prevention and training, strengthening decision-making, responsiveness and preparedness to deal with fires and accidents.

The solution:

LiveU's compact LU300S field encoder, deployed with a DJI Mavic Pro drone operator, to deliver live videos from the field to SÄRF's headquarters

Over 200 LU-Smart mobile apps supplied to SÄRF's rescue crews, most importantly for use by the fire truck operators on their personal smartphones.

Live feeds transmitted to the LU2000 server in the HQ control room, displayed on a large 70-inch screen with data from the live server transmitted out to the field.

Rescue Services Case Study: SÄRF Fire Safety, Sweden

Niklas Ignell
Fire Safety Manager
SÄRF

"It's often said one picture says more than 1,000 words. We've been using LiveU technology for several years and its reliability, encryption and ease of use, in particular, are critical advantages. We're now using a complete solution where everyone on the team has the LU-Smart app; the fire fighters can simply click two buttons after unlocking their phones to get the video app working. The teams find it easy to use whether they're technical or non-technical."

LiveU PUBLIC SAFETY

Search & Rescue Case Study: Pegasus Aviación

The mission:

Operation of aircraft in emergency environments – mainly forest fires – and the rescue of people on land and at sea

The challenge:

Optimizing the operations using on-board technology, requiring options that would provide greater connectivity in environments with poor coverage

The solution:

A large number of LiveU's LU300 compact field units deployed in its helicopters to enhance its imaging services in Chile and Spain

Controlled by Pegasus Aviación through LiveU’s cloud-based management system, LiveU Central

Using LiveU's DataBridge technology to access high-speed internet while the aircraft are in flight

Search & Rescue Case Study: Pegasus Aviación

PEGASUS AERO GROUP

José Antonio Rodríguez
Head of Projects,
Planning and Support
Pegasus Aviación

"This technology greatly enhances the information we can obtain from our operations, allowing us to capture live video images from places where it was previously unfeasible. These real-time images play an important role for our customers, allowing emergency managers to make decisions with fresh information from the field. LiveU is an important technological step forward for us and we are looking to expand its use in the other countries we serve through our fleet of over 130 aircraft."

LiveU PUBLIC SAFETY

Key Benefits

- **High-quality** with no compromises
- **Reliable and resilient** video transmission
- **Enhanced mobility** for on-the-go operations
- **Broad visibility:** Borderless video sharing and distribution
- Continue using your existing **Video Management System** (VMS) & Customer Distribution Network (CDN)
- **360-degree** Situational Awareness
- Global **24/7 support**

LiveU
PUBLIC SAFETY

LiveU
PUBLIC SAFETY

Thank You

For more information
www.liveu.tv

PTS
www.pts.gr