

# CASE STUDY

CLIENT **Undisclosed Police Force**



## Police Helicopter Squadron

### TEAM2/KMT/VITEC Cell-network video streaming solution used in undisclosed German Police Helicopters

In a recent project, an undisclosed German Police Helicopter Squadron needed a rugged and airworthy certifiable fallback solution for their legacy DVB-T based video downlinks. The legacy video downlink solution suffers from availability in rural landscapes and time-demanding installation of a receiving vehicle availability on ground.

The onboard video cameras are connected to a rugged VITEC encoder for generating network video transport streams. Those streams are transported and encrypted by the team2applications MLX100 cell/satcom router over attached cell antennas. The encrypted data are transmitted via any mobile network provider to a field-proven video-management-system. All videos captured for situational awareness, patrolling information, and intelligence-gathering missions aboard the state-of-the-art Airbus EC135 Helicopters.

All used products needed to be available commercially off-the-shelf, but they needed the ability to encode video in a format that could be distributed on the IP-based KMT Tracer video management system with all relevant information.

# How the team2 solution overcame the Challenges and the results

**Winning this contract demonstrates the team2's position as a leading technology provider of mobile cell-based IP video streaming technologies and its successful strategy in designing and delivering high-quality, reliable and IT-security enabled networking and tactical video solutions that meet the most stringent specifications of governmental surveillance markets. The project required a rugged, reliable, and versatile end-to-end solution, of which the MGW Pico+ TOUGH was the perfect solution. It provides every capability for processing and distributing ISR or situational awareness video generated by surveillance helicopters.**

Christoph Eder,  
General Manager,  
team2applications GmbH

team2 and its cooperation partner KMT GmbH built the solution in collaboration with VITEC, the worldwide leader in advanced video encoding and streaming solutions. Together the solution was able to meet all the requirements of the customer's request.

The solution can be tailored to individual customer requirements by implementation of team2 MLX100/VRX211/NGR421 Routers, VITEC single channel HEVC/H.264 MGW Pico+ Tough, or the MGW Diamond TOUGH HEVC/H.264 quad-channel video encoders and team2 designed airworthy antennas. Housed in ruggedized enclosures, all products are airworthy-grade appliances that are designed specifically to support intelligence, surveillance, and reconnaissance (ISR) from manned or unmanned airborne platforms, ground vehicles and marine vessels operating in extreme conditions.

Through the EC135 Retrofit program, all appliances are installed in a ruggedized roll-on-/roll-off rack which can be installed in customers helicopters within 5 minutes with seat-rail quick-locks to the airframe and easily connected to a helicopter standard power outlet and the video-cameras 3G-SDI video outlets.

The solution meets the customers requirement for two independent video transmission systems on the equipped helicopters and simply overcomes the requirements by also providing a WLAN network access point which extends the police forces IP-network to the helicopter cabin.

The VITEC Encoders providing up to four 3G/HD/SD-SDI or composite inputs for video capture and live streaming. In addition to providing H.264 encoding, the MGW Pico+/Diamond TOUGH offering an option for advanced HEVC compression for streaming HD/SD video (up to 1080p60) with bandwidth savings up to 50 percent compared to current H.264 standards.

The team2/KMT/VITEC solution is the industry's first ruggedized Roll-On/Roll-Off opportunity to bring bandwidth-efficient HEVC compression technology into field video streaming applications.

