



viprinet®

Company profile

Code One GmbH & Co. KG

- Business sector: Broadcasting solutions, live streaming services, video production
- Place of business: Düsseldorf, North Rhine-Westfalia (DE)
- Established: 2010
- Number of employees: 15
- Contact: Zlatko Kauric

Project facts

Hardware used (per Streaming Kit):

1 Multichannel VPN Router 1610

6 3G/HSPA modules

Streaming: Flash / h.264

Resolution: up to 720 x 576 @ 25 fps

Data rate: Stream up to 3 Mbit/s (1.5 Mbit/s recommended), upload up to 6 Mbit/s

Power: 2x V-mount batteries or 12 V

Configuration: Internal touch display

SOLUTION STUDY

MOBILE STREAMING IN HIGH QUALITY

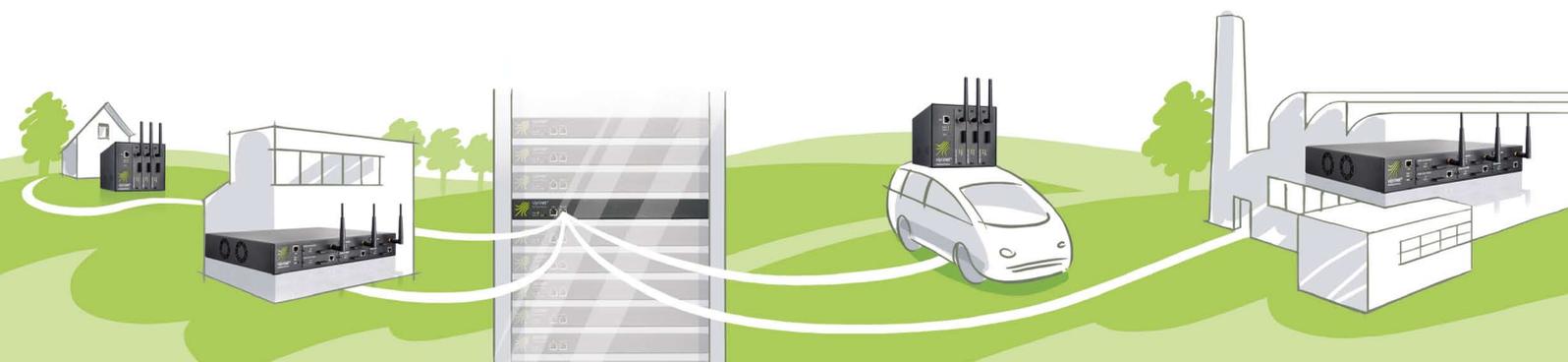
For direct transmission of live images via video stream into the Internet, German Viprinet partner Code One developed a solution based on the Multichannel VPN Router, which is unique worldwide. The Code One Streaming Kit combines all the necessary components for fast, uninterrupted and steady streaming in just one backpack.

OVERVIEW OF BENEFITS

- Direct transmission of live videos into the Internet and for TV stations
- Best streaming quality even in mobile use
- Portable complete device
- Flexible and easy-to-use application

THE TASK

Mobile live streaming via 3G sounds like an idea that is both logical and applicable for many purposes. Yet this idea has proven to be extremely difficult when it comes to turning it into reality, due to the transmission performance of 3G networks, which varies greatly between different places. Frequent interruptions, high latencies and highly fluctuating data rates render the medium too unreliable for the requirements of live video streaming. On their way to find a solution for this problem, Code One founders Zlatko Kauric, Sven Hanten and Boris Kantzow discovered the Viprinet tunnel technique. Emerging from that, they developed the Code One Streaming Kit, an easy-to-use complete package for TV stations, video journalists and organizers.





"The Viprinet routers allow us a previously unimaginable mobile bandwidth for video broadcasts of up to 3 Mbit/s. When used for FTP uploads, the Streaming Kit even gains up to 6 Mbit/s. Due to the modularity of the routers, we will also be able to provide our clients with the new technology in our Streaming Kits as soon as LTE is introduced next year."

Zlatko Kauric

IMPLEMENTATION

To be able to use the unique tunnel technique of the Viprinet Multichannel VPN Router for live video broadcasting, a few obstacles had yet to be overcome. Integrating all of the required hardware in a handy format posed a vital challenge. At first, a solution centered around a suitcase combined a Multichannel VPN Router 300 with 3x UMTS, a professional notebook, batteries, and multiple interfaces for analog or digital video and audio connection. After a further series of tests including one mobile backpack version and one professional 19" device for static mounting were developed, the concept of a mobile system based on a Multichannel VPN Router 1610 with up to six 3G modules prevailed in the end. Code One and Viprinet were in close contact during the entire development process and thus managed to meet the upcoming challenges together swiftly.

RESULT

The reissued mobile Streaming Kit forms a versatilely applicable and reliable technology for uninterrupted real-time transmission of video data into the Internet, but also to professional broadcasters. Encoder, transmission device, power supply, and all the necessary interfaces are placed in one single backpack, so that it may be used as mobile Internet hotspot at the same time.

The Streaming Kit has already been employed for the live broadcasts of numerous events, e.g. during the Ironman Austria in Carinthia, the Rhine Fair in Düsseldorf, the Düsseldorf Marathon, and during broadcasts from Turkey and Dubai for Sonnenklar.tv, a German travel TV channel.

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