viprinet®

CASE STUDY
SMALL CAR, BIG INTERNET

Company profile

tividoo GmbH

- Business sector:
  Broadcasting / Event Coverage / Media / IT
- Place of business: Langenlonsheim
- Established: 2012
- Contact: Tobias Gramm,
  CEO of tividoo GmbH

Important news is broadcast from big cities; the actual event, however, often takes place in far remote areas. To report from there on an event using digital broadcasting technology can be managed only via expensive satellite technology due to lack of network coverage and bandwidth of individual providers. For that, so-called SNG (Satellite News Gathering) vehicles have to be provided which transmit video and audio signals to the respective broadcast stations via satellite links. With their mobile subcompact hotspot, tividoo, a company from Langenlonsheim, Germany, provides an efficient and economical alternative.

OVERVIEW OF BENEFITS

- Mobile usage throughout Europe
- Maximum throughput by aggregation of the bandwidths of all available mobile phone connections with satellite radio based on Eutelsat Ka-Band
- Sophisticated latency management for smooth transmissions with professional demands

Project facts

Internet on wheels, IPNG (IP News Gathering) for TV and Broadcasting

Hardware used:

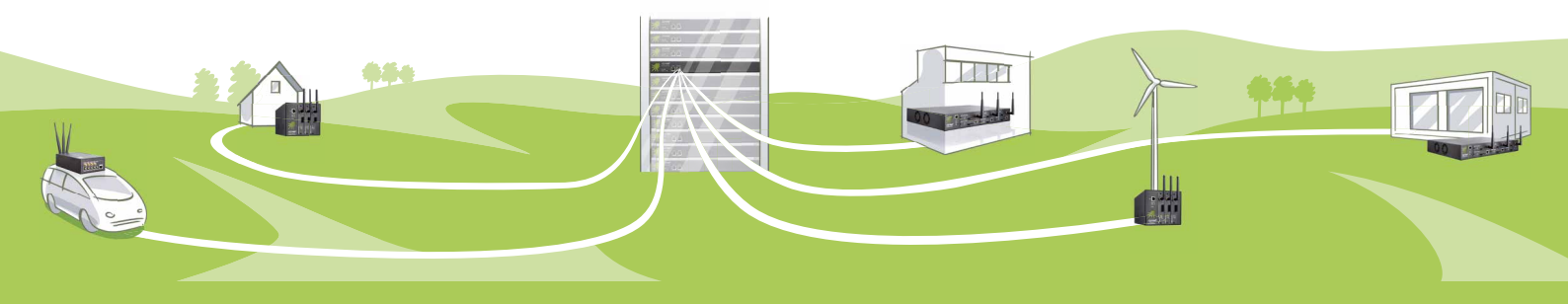
1 Multichannel VPN Router 500

Project launch: 01/2013

Remote station hosted by Viprinet

THE TASK

When live-broadcasting events, sufficient bandwidth is especially important due to the amount of data being transmitted. By now, professional video encoders and codecs are very efficient in achieving very good video and audio quality even with lower data transfer rates via e.g. 3G and 4G connections. However, mobile radio is a shared medium, meaning the achievable bandwidth differs from one radio cell to another depending on the number of logged-in devices, and on how the radio cell itself is connected to the Internet. A more economical connection solution should enable bonding several mobile phone links in order to provide the necessary bandwidth. A suitable satellite link has to be integrated to guarantee a certain minimum bandwidth, e.g. by using the new mobile Ka-Band satellite technology. This way, video and data transmission is possible everywhere in Europe – always at the most favorable conditions.



"Based on Viprinet technology, we offer a system for Internet access and data transmission for video and audio that is redundant and available everywhere. Thus, we are faster, more flexible, and more economical than common SNGs."

Tobias Gramm,

CEO of tividoo GmbH

tividoo

IMPLEMENTATION

At first, a self-directional satellite antenna was mounted on top of a subcompact car, as well as several mobile phone and W-LAN omni-directional antennas. A Multichannel VPN Router 500 was then installed in the car, equipped with four UMTS/HSPA+ modems as well as a connector for Gigabit Ethernet. Due to its robust design without any movable parts, model 500 is especially suited for installation in vehicles. For the router, Streaming Optimization was activated which ensures that the data stream is not interrupted despite high latencies due to the satellite transmission. In addition, a HD-SDI encoder is used for streaming which is specially adapted to the technology of the Streaming Optimization and to the high latencies of a satellite link. This further increases the experienced broadcast quality.

RESULT

With the subcompact car the company tividoo converted to a mobile hotspot, radio and TV reports can be broadcast from the most remote areas for the first time at an unbeatably favorable price. Up to four mobile phone connections bonded together provide ideal bandwidths for data-intensive video and audio streaming. If necessary, an ultra-modern 2-way satellite link ("Ka-Band") is added to the Viprinet VPN infrastructure. Via powerful W-LAN antennas, this highly reliable, fast, and safely encrypted connection provides excellent reception for terminals like computers and camera systems within a radius of 2 km. The small vehicle can be employed fast and easily in any place. By that, the tividoo solution is able to expand the classical broadcast market with a combination of bonded satellite and mobile radio – for video and audio transmission that is incomparably inexpensive.