



viprinet®

#### Company profile

P4 Radio Hele Norge AS

Branch/Business operating area: Broadcast

- Headquarters: Lillehammer, Norway
- Established: 1993
- Company sites: Head office plus many mobile locations
- Number of employees: 100

#### Project facts

Mobile and remote connectivity

Hardware used:

Multichannel VPN Router 510

Multichannel VPN Router 1610

Multichannel VPN Hub 2000

LTE/DC-HSPA+/EDGE/GPS Modules

Project launch: 2013

## CASE STUDY

### MOBILE RADIO BROADCASTING IN NORWAY

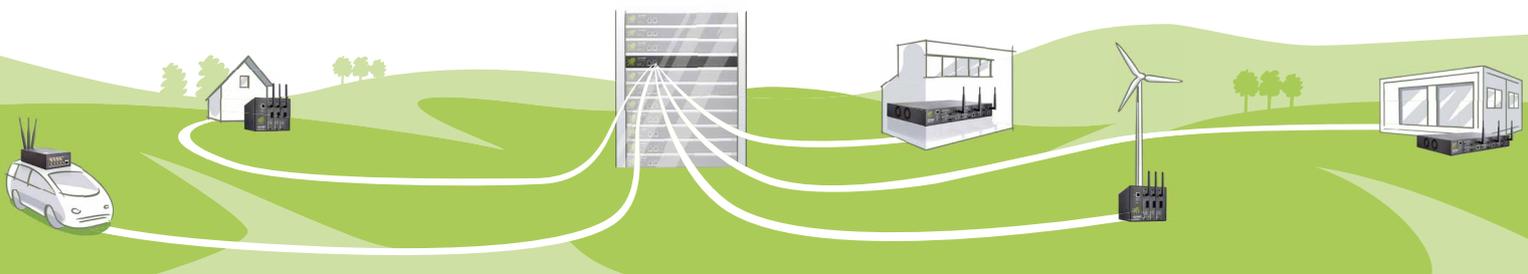
Outdoor live broadcasts from remote areas are generally considered the ultimate test of mobile network solutions. Industry requirements for these kinds of deployments include many challenging features, all of which come with the expectation of low operational costs: ample bandwidth, continuous uptime, low latency, and quick, simple set-up. P4 Radio, Norway's leading private radio station has nearly a 25% market share, a million daily listeners, covers many tours, and frequently broadcasts from remote locations. To meet their exacting standards, they deploy Viprinet technology for mobile and remote connectivity.

### BENEFITS OF VIPRINET'S SOLUTION

- Reliable connections in remote locations
- Increased bandwidth and lower latencies
- Secure remote access to backend systems
- Simple setup on location
- Cost savings with reduced use of ISDN

### THE CHALLENGE

Broadcasts from remote locations need to occur regardless of whether sufficient bandwidth is available. P4 Radio covers many tours in Norway, where network coverage is poor. Accessing the necessary bandwidth with ISDN has been cumbersome because a new connection had to be set up at every location, costing time and money. Relying on a single 3G connection has proved unfeasible, and a satellite connection – the typical solution in these situations – is not an option due to the expense and that medium's high latencies. The solution also needed to include secure remote access so that P4 Radio employees would be able to reliably control remote music services located in Lillehammer and Oslo from anywhere.





*"Viprinet has allowed us to rapidly and reliably set up connectivity at virtually any location in Norway, even when reliable mobile connections are in short supply."*

Svein Tjeldflåt

Program Engineer, P4 Radio



Partners involved:

**ShareCon** 

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## IMPLEMENTATION

Using Viprinet's technology, P4 Radio deployed VPN Multichannel VPN Routers 510 and 1610 to aggregate the bandwidth of all available provider connections wherever they are needed. The routers are equipped with LTE/DC-HSPA+/EDGE/GPS modules and connect to the internet via a Viprinet Multichannel VPN Hub 2000. Apart from bonding multiple mobile providers, the setup also allows for integrating a fixed line if available. This implementation was carried out in cooperation with Viprinet's Danish distributor Sharecon. Initial challenges resulting from P4 Radio's firewall solution were quickly solved. The implementation included a full day's technical training on location in Denmark.

## RESULT

By using Viprinet bonding technology to aggregate multiple providers into one single VPN connection, P4 Radio no longer needs to solely rely on ISDN when doing live radio broadcasts from remote locations. ISDN is still used for audio transmission, but Viprinet is as a backup for audio over IP, and is also used for internet access and remote control of music services. At the same time, the quality of the broadcasts has improved as the available bandwidth could be increased and latencies lowered. In addition, P4 Radio also has been benefitting from considerable cost savings since they have implemented the Viprinet solution into their systems. They can now set up connections for radio broadcast and remote access rapidly and reliably almost anywhere in Norway.

