



MOBOTIX

C A S E S T U D Y

Network Video – As Close As It Can Get

Success Is a Must

More than 50% of the population of Hessen (one of the German federal states) regularly listens to Hit Radio FFH. Only two years after it started on November 15, 1989, the station became the market leader in Hessen and since then has never given up that position. The lead in market



share is more than evident: an average hour of broadcasting by the radio station from Bad Vilbel near Frankfurt/Main boasts about 660,000 listeners

– more than twice the number of the competing public radio station. “We are a privately-owned station and, thus, are committed to success,” FFH spokesperson Dominik Kuhn explains the strong leadership position. “As we are not sponsored by public money, we need to work hard for every cent we can get,” he adds. With an annual budget of around 45 million Euros, the 84 employees need to collect quite a number of cents.

Eye-to-Eye With the Audience

The success is not only based on the program, as one of the station’s slogans states, “The hottest hits. The best mix.”, but also on forging a close relationship with the

audience itself. Consequently, another Radio FFH slogan claims, “As close as it can get”. “Radio is a means of having company,” states Dominik Kuhn. “We keep our listeners company all day long, through the night and in the different personal situations they are in,” he adds.

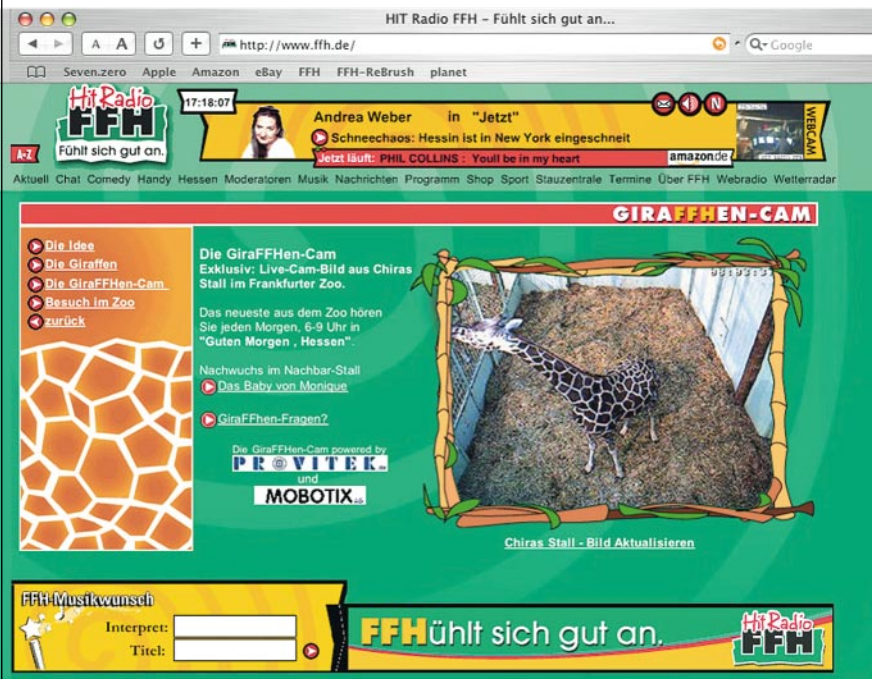
Dunk the Boss

One major column of the station’s success are the unique events organized by the station’s staff. Take an event in the summer of 2003, for example, when a rather wet fun event named “Dunk the Boss” resulted in quite a number of superiors that were given a not-so-voluntary bath.

Like virtually no other radio station, Radio FFH is using the Internet to connect to its audience. The station uses the Internet to reinforce the contact with their listeners – and they deliver pictures for the individual programs and events. As other spectacular events show, the success of an Internet presentation needs a high-quality web cam. Here is when the FFH engineers decided on Mobotix network cameras.

Security Vision Systems





Happy birthday – giraffe fever online.

More Than 20 Million Viewers

Reliability in the Cow Barn

Does a cow produce more milk after a week-long exposure to the FFH program? The answer is Yes! At least, this is the conclusion drawn by the Hessian minister of agriculture, Wilhelm Dietzel, who was accompanied by several media representatives when he personally milked the cow. The "music exposure week" was monitored by means of a Mobotix network camera installed in the barn so that the listeners could check online that the cow was doing well.

"For this event, we had been looking for a camera that could transfer its images via the Internet automatically," explains IT specialist Rüdiger Faust of Radio FFH. "The Mobotix network camera has proven to be an extremely reliable and sturdy solution that transfers images 24/7 without any problems," he adds. No wonder that the camera was also used to monitor the "Christmas family". For this project, the station accompanied and monitored a large Hessian family during the Christmas holidays. However, the event following in February 2003 topped everything else.

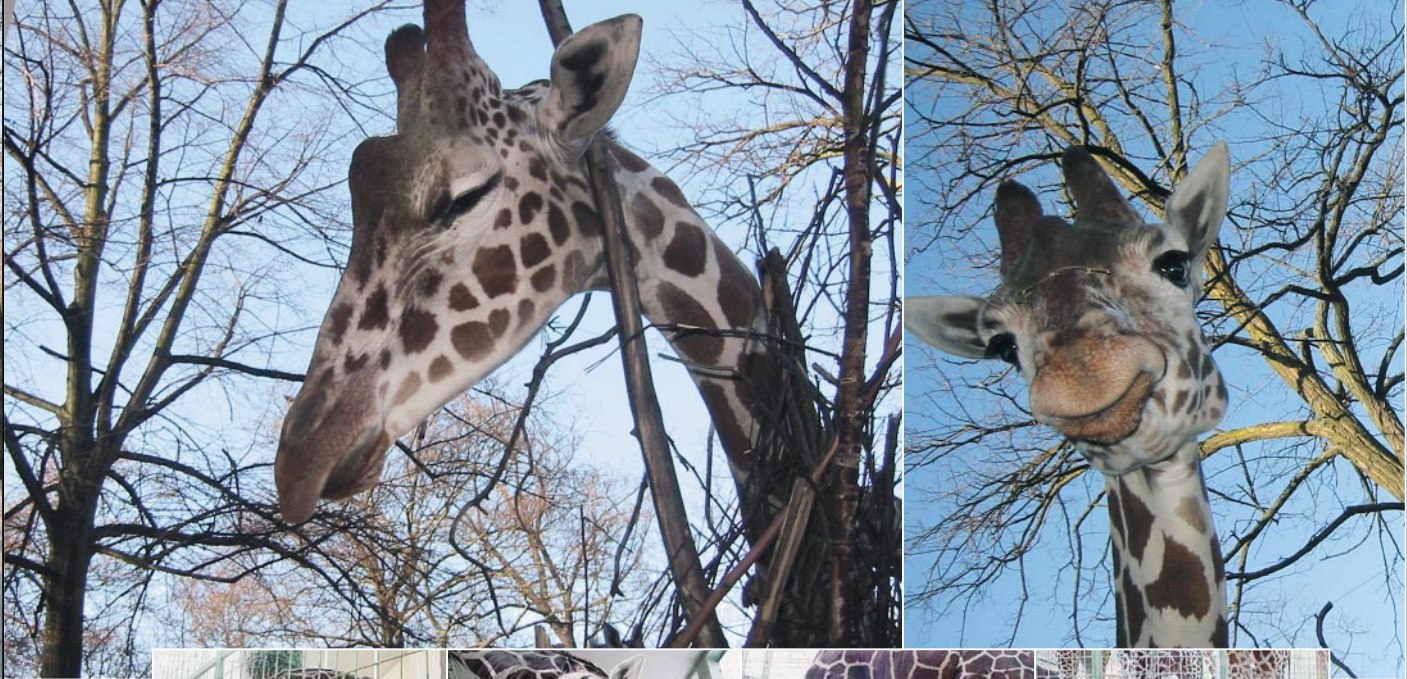
Never Change a Winning Team

"When a giraffe was due to give birth at the Frankfurt zoo, the zoo officials asked Radio FFH if there was a camera that could monitor the mother without disturbing her," remembers Dominik Kuhn. "In close cooperation with our editorial and engineering staff we created a solution for our website that allowed not only the zoo staff but interested FFH listeners as well to witness the rare occasion of a giraffe giving birth," he continues.

For this event, Mobotix technology was used once again. "Due to our very positive experiences on the two previous projects, we decided to use the same camera in the giraffes' enclosure," explains Dominik Kuhn. "We like to stick with the football saying 'Never change a winning team'," he concludes.

Day and Night

Since the giraffe was to be monitored around the clock, a very special Mobotix camera was needed. For this purpose, the MOBOTIX MID-Night was used. This camera model is equipped with two lenses and automatically switches between the day and night lenses depending on the illumination. This ensures that images can be recorded even in the dark using IR lights.



The camera was installed in the giraffes' enclosure and sent live images via ISDN and FTP to the FFH server every two minutes. Using a customized application, the images were assigned a date and time stamp, they were archived for the zoo and published on the Internet. Whether day or night, the FFH audience was present live in the giraffes' enclosure. On the radio, the zoo staff explained what was happening and why.

GiraffHe Fever

The project's main intention was to support the zoo and to allow the listeners to witness an extraordinary event. But nobody had expected that the entire idea would turn into a success story prompting the radio station to coin the term "GiraffHe Fever". "All major newspapers featured this story, all big television stations as well – even CNN had this subject on its news program," says Dominik Kuhn. As this news spread around the globe, everyone wanted to witness the giraffe giving birth live from behind their computers. Giraffe fans from all over the world – from the U.S.A. to Japan, from the U.K. to South Africa – sent enthusiastic emails to Radio FFH.

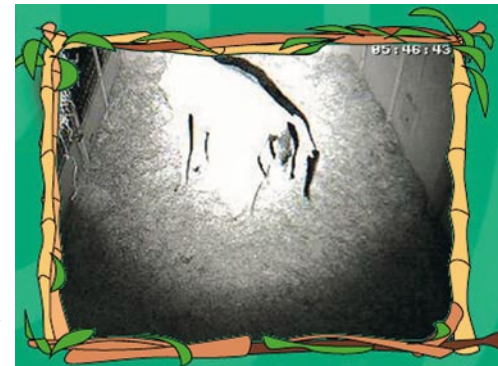
Technical Problems

"To be honest, we really didn't expect this kind of popularity. On top, we didn't have the technical infrastructure to cope with it," admits FFH engineer Rüdiger Faust. "Therefore, we had a bit of a problem to handle

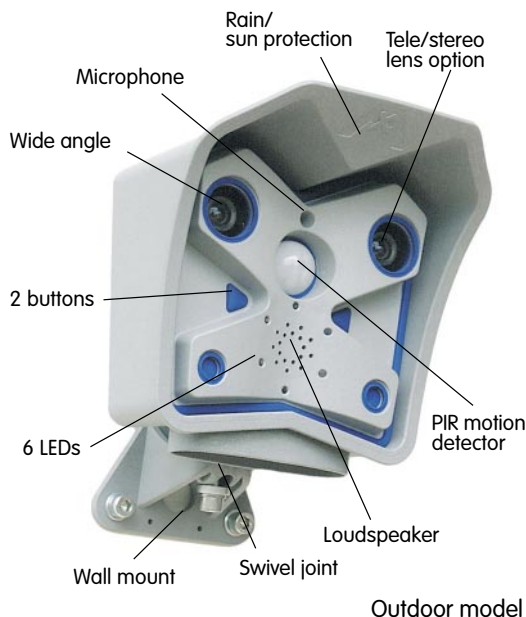
the enormous number of visitors on our website. During the entire event, our Internet server worked almost to capacity," he adds. Although the camera continued to deliver its images as reliable as can be, there were times when the server was not able to handle the enormous number of hits. This resulted in longer load times or even error messages for the visitors.

One-of-a-Kind in Europe

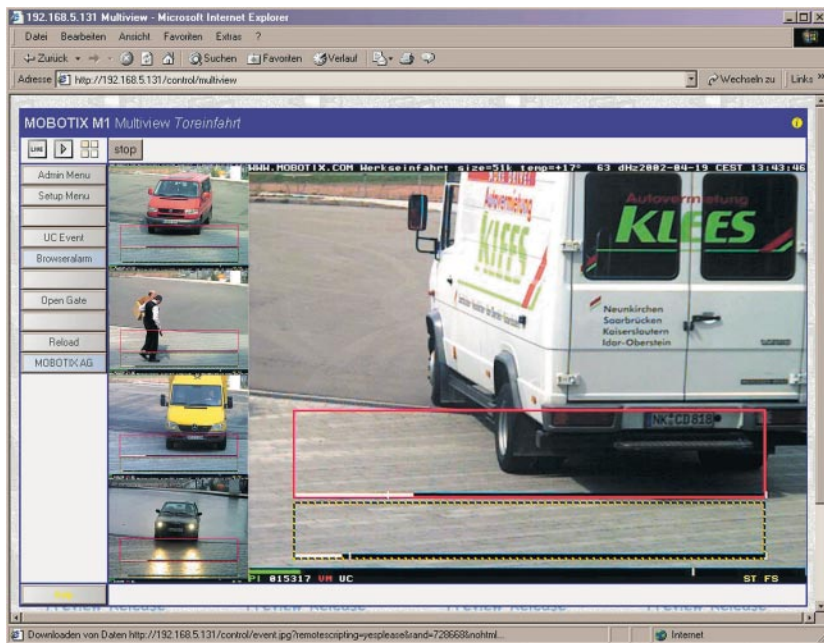
In the end, more than 20 million people had accessed the server. One of them was the Hessian minister president, Roland Koch, who later sent birthday wishes for the newborn giraffe. Finally, on February 21, G-day came. At 5:46am, the firstborn of giraffe mother Chira fell into life from an altitude of 2.5 meters (8ft) and for the first time in Europe, the birth of a giraffe was displayed live on the Internet. "All of this was possible only thanks to a highly reliable and excellently performing network camera," summarizes FFH spokesperson Dominik Kuhn.



Giving birth in the dark – live coverage using a night lens.



The MOBOTIX camera is controlled simply by using a browser.



MOBOTIX AG IP Surveillance "All-in-one"

High Return on Investment

The MOBOTIX M1 is the first and only weatherproof network camera featuring an integrated recorder, video management system, video sensors and audio capabilities. As the number of cameras, storage capacity and data connections (ISDN, DSL, Ethernet, WLAN, GSM, copper, glass fiber) are freely scalable, MOBOTIX stands for high return on investment.

Performance and Flexibility

Using the M1 camera, images can be recorded internally as well as externally. For external storage, any standard file server (Linux, Windows) can be used. In this scenario, the camera performs all database management tasks without requiring any kind of software installation. All recording, FTP and email functions can be triggered either time- or event-controlled. As the camera is fully browser-controlled, no software or plug-ins need to be installed. The control center software (MxPEG Viewer) is available free of charge for displaying multiple cameras either on a PC or a monitor wall at high image rates. Alarms can be forwarded via email, SMS or phone call

and can also be received on smart phones and PDAs. The camera is equipped with intercom features for IP and telephone. Despite the multitude of features, the camera can be installed as easy as a network printer. For supplying power, the Ethernet cable or a solar panel with rechargeable battery is sufficient.

Young and Innovative

MOBOTIX AG was founded in 1999 by Dr. Ralf Hinkel and is a privately held company. The company is located in Kaiserslautern, Germany, and produces professional network cameras for security, production monitoring and Internet applications. MOBOTIX AG operates globally through its subsidiaries, qualified specialist distributors and retail partners. More than 50% of the production are exported.

Hardware Used

Radio FFH, giraffes' enclosure at the Frankfurt zoo

Installation at the zoo:

- 1 MOBOTIX camera M1D with a standard and an IR lens
- 1 IR spot (Provittek)
- 10/100 Mbps connection to the camera (control/maintenance)
- ISDN cable connecting the camera and the NT
- MOBOTIX power supply plus power adaptor

Server:

- 1 web server, Linux, Pentium III, Dual 700 MHz, 1 GB RAM,
- 100 Mbps connection to the backbone of the Internet provider

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