

Referenz: Wide Area Network (WAN) measurement for the County of Steinfurt

Steinfurt, March - May 2009

1 Short description of the customer

The County of Steinfurt is the second largest county in North Rhine-Westphalia by acreage with 1.800 square kilometres. It borders on the Netherlands and the Federal State of Lower Saxony and is located in the Western part of Germany. About 444.000 people - way above average of them are young people - live in the 24 cities and communities, which belong to the County of Steinfurt since the local government reform in 1975.

Characteristic of the County are the healthy economic structure, various leisure facilities, the inherent natural beauty, the miscellaneous educational infrastructure, the affordable building area, intact social networks and excellent transport connections. These mentioned positive locational factors and others are responsible for the high quality of life.

The 1.100 employees in the district office complete various duties in the main administrative offices in Steinfurt and Tecklenburg as well as in the other district offices. Main duties of the County of Steinfurt are the political representation of the citizens, the communities' administration, and the provision of several public service offerings (for example vehicle registration office, public health department, etc.).

<http://www.kreis-steinfurt.de/>

2 Project goals

- **The starting point**

Due to technological progress, the County of Steinfurt decided to update the bandwidth and capacities of its communication lines with over 60 VPN-connections, in order to be able to continue to transmit its data at different priorities between the individual administrative outposts. Regularly, every three or four years, the service newly will be put out to tender. The last service has been tendered throughout Europe on 1st of January 2009.

To guarantee that the selected service provider achieves its assured performance requirements, the tender included an agreement that an external neutral company will double check these requirements.

- **The cooperation in the past**

In 2006, EANTC had already conducted tests for the County of Steinfurt which were high in quality and yielded very satisfying results. EANTC was able to support the County by uncovering problems which were then solved by the service provider. This saved the County of Steinfurt a significant amount of time and extensive trouble shooting.

- **The goals**

EANTC was commissioned to check the results of the update by the service provider and uncover potential faults by measuring the WAN lines. This included verifying if the contractually agreed characteristics were delivered by the service provider as stated in the service level agreements

(SLAs). In addition, the configuration was evaluated with respect to functionality and accuracy.

- **The test scenario**

EANTC conducted measurements at a total of eight locations throughout the County of Steinfurt. The range of services ranged from ISDN dial-in back-up lines up to 34 MBit/s (E3) connections. EANTC emulated the applications with the respective characteristics (for example voice and data transfer at different priorities) with measuring devices on the basis of real data streams between the individual administrative authorities.

In detail, throughput, latency of the lines, the QoS concept (Quality of Service), and the switching to the back-up link were checked. The back-up line is a secondary line with a lower bandwidth that is used to transfer all data in case of faults to ensure continuity of the office's duties.

This necessitated checking the functionality and possible time lag of the automatic switching.

3 Advantages for the customer

- **Performance confirmation & fault detection**

Our measurements checked whether the performance contractually agreed on with the service provider was indeed delivered. EANTC also tested whether the configuration (including the defined priorities and switching in case of faults) worked flawlessly. Faults that were detected in the course of this evaluation were remedied immediately by the service provider during the course of the measurements.

- **External quality assurance & independent expertise**

EANTC is highly regarded in the industry for its very high test quality, years of experience and technological know-how. The company has the necessary experience and resources to conduct these tests quickly and competently and prove faults clearly.

- **Saving time & money**

The EANTC acceptance tests allowed for finding faults in the configuration which were immediately remedied by the service provider.

This saved the County of Steinfurt a high amount of working hours to be invested in trouble shooting at a later point. The configuration is now optimized and guarantees a reliable continuation of office duties. And this even in case of failures in WAN lines between the office outposts and the main office by way of the back-up line.

Even though the investment in measuring seems to be rather high at first glance, it is certainly worth investing in quality, which is reflected by the high return on investment (ROI) rate secured by the professional implementation and the clear results.

4 Schematic outline of the test set up

