

CASE STUDY

## Telefónica Germany

**TELEFÓNICA GERMANY SECURES VITAL COMPETITIVE ADVANTAGES WITH LOCATION INTELLIGENCE.**

**TELEFÓNICA GERMANY RELIES ON PITNEY BOWES BUSINESS INSIGHT PRODUCTS FOR LOCATION-BASED OFFERS AND SERVICES.**



### Challenge

Geographic information systems (GIS) play a key role in mobile communications. The mobile communications provider, Telefónica Germany, utilises location intelligence software from Pitney Bowes Business Insight to secure vital competitive advantages.

### Solution

Thanks to its own mobile communication network as well as a roaming agreement, Telefónica Germany supplies its contract and prepaid customers with practically nationwide GSM cover. Furthermore, the company also provides innovative mobile data services using GPRS and UMTS technology.

### Introduction

"As far back as 1998, Telefónica Germany examined all leading providers of GIS software. The contract was awarded to the MapInfo-Professional® Suite. Since that time, the mobile communications company has been using Pitney Bowes Business Insight software for the development of geographical applications", explains Markus Summer who is responsible for all GIS software developments at Telefónica Germany in his role as Applications Manager.

#### **Telefónica Germany turns the power of GIS into tangible competitive advantages**

Geographic information systems are important to all mobile communication providers, for example for network planning. However, with Telefónica Germany the meaning of GIS goes far beyond its descriptive use. The company has seized the opportunity to secure a competitive advantage by introducing the GIS-based Homezone service. The Homezone concept, which allows the customer to make calls in a regional zone surrounding his residence at a particularly favourable tariff, was first launched in Germany and made popular by Telefónica Germany. This is exactly where GIS plays a key role. It is important for the customer to know which area his Homezone covers before he decides on this option. A quick visit to the Telefónica Germany website is sufficient. The customer simply enters his place of residence and a map will show him how far his Homezone ranges. For example, he can see whether the beer garden around the corner or his favourite coffee shop are included. Telefónica Germany

developed the algorithm necessary to carry out the Homezone check in collaboration with specialists from Pitney Bowes Business Insight. In addition to contributing to the visualisation process, PBBi also helped in the initial design and implementation of this important competitive advantage for Telefónica Germany in the mobile communications market.

In all cases, the MapInfo Suite—provided that it is functionally suitable—serves as the basis for the application development. Telefónica Germany attaches great importance to being a leading company in GIS application development and does not want to limit itself to mapping. One of the main reasons why Telefónica Germany has decided to focus on the Homezone option is that it has allowed the company to reach a strong competitive level, an achievement that can be directly attributed to its own GIS expertise, but also to the functional capacity of MapInfo Professional.

MapInfo Professional is used daily by Telefónica Germany for the analysis and visualisation of data in use. For example, network coverage maps are enhanced with new information prepared and visualised with MapInfo Professional.

Should an aerial in the network fail, an alarm is triggered and the faulty aerial is immediately marked on the map. Colour codes indicate which cells are faulty and thus the affected area. This information is also available to the customer service centre. If a customer calls the centre, for instance because he has no reception, customer services can immediately provide information.

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Of course, this kind of alarm alert is exceptional. More commonly occurring alerts refer to maintenance information that detail, for example, when maintenance is being performed on an aerial and which cells are affected by this. The map also displays Homezone availability, which can be accessed on the web by customer services as well as by the customer himself. This requires a whole series of data to be linked together, which is currently carried out by Telefónica Germany on a monthly basis. The imaging is again presented with MapInfo Professional.

Telefónica Germany also utilised software from PBBI to respond to the requirement set by the Regulierungsbehörde für Telekommunikation und Post (German Regulatory Authority for Telecommunications and Post — RegTP) that aerial locations must be published in a way that makes the information accessible to everyone. Entering a postcode and street number on the relevant website brings up a map segment that shows the various Telefónica Germany aerial locations. Visualisation is provided by MapXtreme.

#### Numerous GIS applications based on the utilised MapInfo Suite

Homezone check and aerial location maps are two GIS applications that can be accessed directly by customers on the web. However, most other GIS applications run in the background.

In particular, this includes the information software for customer services that is based on MapXtreme. There is also a whole series of web applications, such as those used by dealerships, for which Homezone check is also of importance.

In addition, based on MapXtreme, Markus Summer and his GIS team have programmed the in-house applications for data analysis based on data warehousing technology and for various marketing initiatives. For example, customers can be notified by mail when new services become available in their region. This also includes tools for the quality evaluation and visualisation of the network created by Telefónica Germany with MapBasic.

The power of Telefónica Germany's geographic information system extends beyond the telephone service. It also plays a central role in the new wireless DSL and LTE Internet service. An application developed using MapXtreme enables customers, dealers and customer services to determine where fast Internet access is available. Therefore, the decision to standardise the development of GIS software, based as far as possible on MapInfo, was an easy one to make.

New versions facilitate the unification process as extended functionality and improved performance levels enable the installation of new applications that have previously run on other platforms.

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