

Case Study

Pure IP Telephony



case study Availability

- : Sparkasse Bamberg
- : Financial institution
- : 950 employees
- : IP 3000; Redundancy concept; Location concept; Trunking; Soft Migration

In the 180 years of its existence the savings bank, Sparkasse Bamberg, has built up its reputation to become one of the most reputable companies in the Bamberg area. Approximately 950 staff members are employed in over 50 branches. The balance sheet total of 2,8 billion Euro proves that the Sparkasse Bamberg is the regional market leader. The excellent customer service has surely contributed significantly to the success of this banking establishment.

The company communication infrastructure was radically modernised at the end of 2004 in order to stay ahead of competition and also to continue generating a maximum of customer satisfaction in the future.

A common infrastructure based on IP protocol was introduced to replace the conventional separate networks with lines for voice and data traffic. This means that not only do new possibilities exist for employees in the areas of CTI and UMS, but there is also a clear gain in flexibility for on-site customer support.

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Cost analysis and decision making

The cost analysis which was carried out together with the data centre of the Bavarian savings banks (here referred to as the IZB) determined the decision in favour of IP telephony. The result of this analysis was the recommendation to unify the company's heterogeneous telecom landscape and to undertake a clear centralisation to two central offices. The data lines already installed proved to be suitable for IP telephony. Those responsible pledged not only cost savings but also a sustainable basis for further applications in the areas of Unified Messaging (UMS) and Computer Telephony Integration (CTI). In particular one of the main expectations of the new technology was further improvement of customer satisfaction. The availability of staff members in branches using an ISDN line with 2 voice channels was no longer satisfactory. One of the main advantages of IP telephony is its flexibility with regard to the number of voice channels: it is suitable for

any sized company - from small scenarios to large company networks with thousands of employees. The network can be extended and adapted to new employee numbers at any time after installation.

The Sparkasse Bamberg also relied upon IZB's assessment of service providers and manufacturers. The criteria included investment costs, running costs, amount of maintenance required, possibility of self-operation, innovation, standardised interfaces as well as openness for new applications. After consideration of all these criteria the decision fell in favour of the solution from innovaphone AG, the IP telephony specialists based in Sindelfingen. The company TeleSys Kommunikationstechnik GmbH from Breiten- güßbach was commissioned to be the service provider for the whole project.

The first discussions concerning IP telephony for the Sparkasse Bamberg took place in August 2004 and the decision in favour of

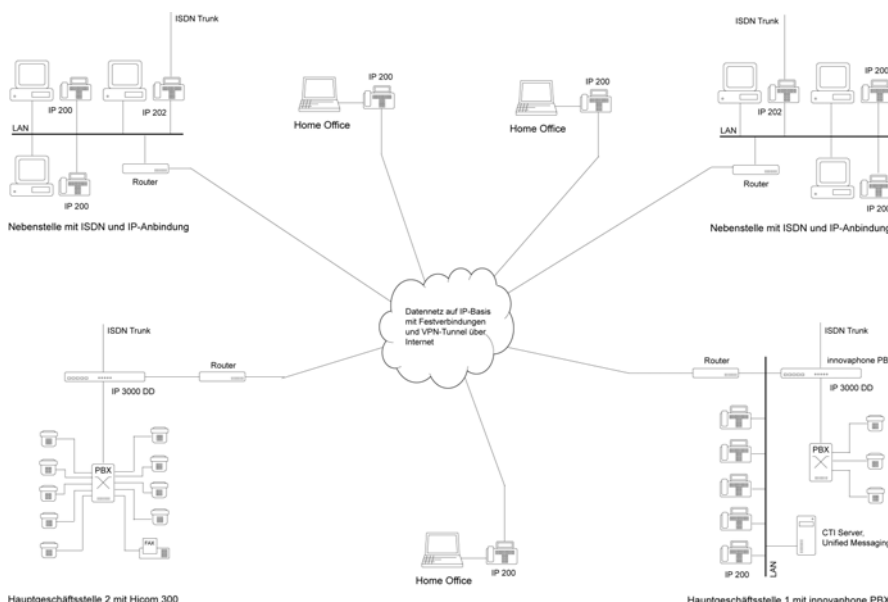
the new technology fell quite quickly. Only six weeks lay between ordering and rollout at the branch offices. The complete installation was carried out between October 2004 and January 2005, proving the excellent project management and an outstanding rollout plan from both the manufacturer and the service provider.

Gradual introduction to IP telephony

The Sparkasse Bamberg has over 50 branch offices. Already 37 of these have been completely converted to IP telephony, including one central office with a total of 150 work places. The possibility of soft migration has been used in the other branch offices, where the conventional PBXs – Siemens HiCom systems throughout – have been kept and have been complemented by modern VoIP gateways and terminals. The requirement for a central administration was met by the purchase and installation of two innovaphone IP 3000DD gateways in the two central offices. The IP 3000 was installed to provide access to the existing Siemens HiCom systems in a so-called master-slave configuration.

Due to the heterogeneous telecom landscape, small problems cropped up during installation of the new devices. These were very quickly solved also thanks to the commitment of the manufacturer, who was always available with technical advice. After all this was neither simply a matter of a new installation, nor the expansion of an existing system to IP, but it was a

Sparkasse Bamberg - innovaphone PBX scenario:





In action at Sparkasse Bamberg: IP 202

complete change-over of existing Hicom main switches to the world of IP. Accordingly telephony features such as call forward, routing tables, group definitions etc had to be integrated into the VoIP gateway. Furthermore all analogue connections – fax machines and modems – also had to be converted to IP.

Of course security is a deciding criterion in the banking world. In this context a backup scenario was set up in case one of the central offices should break down. In addition to other security measures the trunk interface was split. Moreover the innovaphone solution is able to ensure the technical availability of each and every branch office as the

IP 202 telephones are coupled with the ISDN line. Stephan Kück, Manager Central Services Company and IT organisation and also project manager reported: "In regard to technology, the change-over to IP telephony within the Sparkasse Bamberg is one of the most complex telecommunication projects, which has yet been undertaken amongst Bavarian saving banks."

Employee satisfaction and new applications

By using IP telephony with the introduction of a standard numbering blocks and by executing all internal calls over the existing data network, it was possible not only to reduce telephone and line costs, but also to simultaneously build up a foundation for further additional applications. Thus a company-wide Unified Messaging solution for sending and receiving faxes will be made available this year. Furthermore a virtual answering machine (voice mail) will be

implemented, further enhancing the issues of mobility and location independence.

Additionally the sales representatives of the Sparkasse will in future be equipped with a UMTS card, a VPN access as well as IP telephones and an appropriate mobile solution. These are all measures which should lead to successful implementation of the main idea behind "every-where on", mobility enabling an optimal on-site customer service.

An employee survey was collected by the Sparkasse Bamberg to test employee satisfaction of the new technology. According to this it could be seen that in regard to voice quality, those branch offices with appropriate bandwidth marked the voice quality as "very good". In other branch offices the problems at the beginning were rapidly solved together by TeleSys in cooperation with innovaphone. Terminal handling, equipment and available features were given a mark "2 better" by the employees on a scale where 1 is the top mark.

Advantages of the IP-Based Solution for the Sparkasse Bamberg

- ✓ **Significant cost-saving** by simplification of the nets and less maintenance costs
- ✓ **Sustainable base** for additional applications like UMS and CTI
- ✓ **Optimising of customer satisfaction**, due to a better availability of staff and a „suitcase solution“ of support service for customers on the spot
- ✓ **High flexibility**: the continuously standard based innovaphone PBX can be extended at any time
- ✓ **Sophisticated backup concept** in order to guarantee maximum system stability

Further planning: step-by-step replacement of traditional telephony

According to Stephan Kück, IP telephony within the Sparkasse Bamberg is consistently being followed up. „After the successful first phase of the project, we aim to continue extending IP telephony in order to completely move away from the old telephony world as soon as possible.“





In action at Sparkasse Bamberg: IP 3000

In future all new branch offices or branch offices where renovations are necessary will be connected using IP from the beginning. Home offices will also be consistently connected over IP protocol. When asked about the meaning of IP telephony for the banking world, Mr. Kück gave a differentiated analysis. He said that “during the last few years IP technology was in the fledgling stages, but it has in the meantime developed into a real competitor and rival for traditional telephony. IP technology will

continue to be extended and grow vigorously. I believe the banking world has a certain need to catch up although the infrastructure conditions for using IP telephony within banking are indeed excellent. Almost every bank has the ideal preconditions for using IP telephony with appropriate bandwidths, leased lines and own corporate networks.”

A detailed analysis of the existing infrastructure and a well-defined concept need to be conducted in the forefront in order to successfully install IP telephony. This is also valid for decision making on which of the various models are economically viable for the introduction of IP telephony. Stephan Kück places emphasis on this fact: “The excellent implementation and the way in which problems, which

occur in a project of this size, were quickly analysed and solved, were only possible thanks to the excellent cooperation between our data processing centre, IZB (network planning and support), the company TeleSys (installation and system configuration) and innovaphone as technology supplier. I have to stress the importance of intensive consultation before such a project is begun.”

TeleSys Kommunikationstechnik GmbH, Breitengüßbach

Being a system provider for telecommunications, **TeleSys Kommunikationstechnik GmbH** stands close to the customer. The company not only offers consultation on installation and maintenance, but also an all-around service for business communication. **TeleSys** emphasises future-orientated solutions which work reliably. Especially the integration of telecommunication and information technologies plays an important role. Telecommunication platforms of leading manufacturers are the basis. Using them as a starting point, **TeleSys** implements applications which optimally satisfy their customers. In doing this, the company is an important partner to the leading businesses in innovation, such as innovaphone. The close cooperation of the 30 **TeleSys** employees from shipping department, technical department, and in-house services guarantees the fast implementation of customer projects. Thus, in the past 10 years, **TeleSys** has become the leading system provider for telecommunication in Northern Bavaria.

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