



Voice Portal and Unified Communications at Berlin Public Transportation Services Company (BVG)

„BVG is a modern service provider using innovative strategies to face the challenges of the future“ (www.bvg.de)

Eighteen times around the world a day ...

... is not the in-orbit performance of an international space station but the total daily distance covered by Berlin Transport's fleets of subway trains, buses and trams. Yet Germany's biggest service provider in the public transport sector has even more impressive facts and figures to show. Every year, around 900 million passengers use the extensive BVG network which consists of nine subway lines, 148 bus routes and 22 tramways.

Anyone who has to perform at such a high capacity every day of the week not only needs safe vehicles and trouble-free road and track but also the best communications systems both internally and externally. The Voice Portal and Unified Messaging specialist CreaLog supports the BVG at several different levels. In addition to the highly efficient timetable information service which CreaLog provides and which has stood the test of time, the BVG recently commissioned a series of unified communications solutions such as voice mail, fax and text message servers as well as an automatic telephone exchange.

State-of-the-art communications boost efficiency

As they set about the major project of replacing the former telecom structures with new Voice-over-IP systems (VoIP), the BVG managers had two priorities in mind:

- > to improve the availability of employees and departments across all channels, and
- > to boost the efficiency of company processes on a sustainable basis.

**BVG**

A few statistics will show just how just how complex and sophisticated this ambition is. Across the Berlin Transport network, there are around 10,500 telephone connections. In the 3,500 offices, the 7,000 technical service-points at the subway stations, along the actual track, and in the control centers that supervise the punctual arrival of all the buses, trams and trains – this in a city with well over three million inhabitants.



Uwe Biedermann, project manager in charge of telecom applications at the Department of IT and Communications Technology, explains: „Despite varying specifications, all the control centers are given equal weight in terms of

safety concept. If there is a technical failure or even an accident, the authorities have to be notified as soon as possible so that the right measures can be taken immediately.“

● **Unified communications: Outlook as central communications interface**

Such facts and figures show that the BVG would hardly be able to meet its responsibilities if it weren't for a smooth communications network encompassing the workforce, various business associates and other Berlin institutions. Not surprisingly, the BVG now relies on tried-and-tested unified communications applications for sharing information via voice, e-mail, instant text messaging (SMS) and fax. Uwe Biedermann: „The hub of the new concept is Outlook. Using that program, we can send a mail to the CreaVoice Server which then generates a fax or a text for immediate dispatch. In doing so, the intelligent system automatically creates a uniform cover sheet and attaches office documents or graphics files in the correct sequence. Voice message delivery is also one of the advantages provided by the new applications set-up.“



● **Computer Telephony Integration (CTI) and user mobility**

Unified communications deliver enhanced availability across different media channels. And here in Berlin, the new CTI solutions make a big contribution to the ongoing goal of improving workflow efficiency. „Thanks to different ways of setting up time-controlled call routing profiles, I can use my PC to organize where and when I can be contacted. This user mobility feature is a most effective solution for a control center environment where somebody somewhere has to be available on a 24/7 basis,“ says Uwe Biedermann.

Another highlight, says Uwe Biedermann, is our so called 'partner bar': „Here you can see for which member of the team a call is intended. And since I can also tell what the conversation status of any team member is, it is possible to initiate connections, routings and conferences on a more customer-friendly basis.“



The communication applications in place at the BVG

- > **Unified Messaging:** voice mail, fax and text message servers
- > **CTI outbound:** enables users to dial from their PC via Outlook
- > **CTI inbound:** triggers a pop-up (with caller data from Outlook) when a call comes in
- > **Automated telephone exchange with natural-language controls,** helping to relieve switchboard staff
- > **Alarm mode:** swift and same-time notification of a defined circle of people via landline or cellphone
- > **Caller prompt and skill-based routing for BVG Call Center with speech recognition in complete sentences and everyday language.**
- > **Timetable enquiries:** automated travel announcements in the BVG Call Center by text-to-speech

● **Availability much improved**

The installation of a state-of-the-art Voice Portal for BVG timetable information has been its weight in gold. The availability of staff at the Call Center has been substantially improved. According to the original analysis, the Call Center employees require on average 30% of their time to note the exact request for travel information, 10% to elicit further details and 60% alone just to announce the actual info. The conclusion was that the Voice Portal to be installed should be proficient in transforming text to spoken language – i.e. text-to-speech or TTS. Furthermore, the high-end speech synthesis technology used must ensure that the announcement of the travel information is clearly understood. It was this and other requirements that BVG's partner CreaLog was able to meet completely.

● **My Voice Computer Colleague has the details**

In the mean time, the voice computer is making up to 1,000 announcements a day, i.e. advising the BVG customers what the best connections are. It goes like this: a Call Center employee answers the incoming call from the customers and notes what the journey

requirements in Berlin are. Then he or she presses the special „Announcement Key“ and the Voice Portal – or „My Voice Computer Colleague“ – gives the required travel information in a clear and friendly way. If the callers do not catch the names of the bus-stops or subway stations the first time round, they can ask for the message to repeated either partly or in whole.

● **Customer and staff satisfaction**

Everyone involved says that customer acceptance with the automatic timetable service is high. A customer satisfaction survey integrated into the Voice Portal shows that the callers are totally happy with this telephone service. Ditto the BVG Call Center employees who all rate CreaLog positively. After all, they see themselves as skilled advisors in the public transport sector and not, as one of them put it sarcastically, an „announcements slave“. By which, of course, she was referring to the fatigue that sets in once you start to read out the same information day in day out. It is exactly this everyday routine that makes absolutely no difference to the ever-polite Talking Computer – and the BVG customers have come to appreciate it highly.

● **Unified server platform also convinces**

Now that the CreaLog applications in place at the BVG are performing so well, further modules are in the pipeline – the CreaVoice AutoAttendant, for example, a truly versatile automatic telephone switchboard. This voice-controlled computer, which can understand whole sentences, puts the caller through to specific teams, departments or offices. Or it puts you through direct to the person you wish to speak to, or their representative. This intelligent solution – it has already passed first practical tests in Berlin – will help relieve employees working on the BVG telephone switchboard from a whole array of routine tasks. Also under construction is a replacement of the current alarm system with a new application. One final word from Uwe Biedermann: „All the modules are hooked up to a redundantly configured server platform. This server concept creates real synergy effects, which was ultimately the argument that clinched the deal for CreaLog as BVG partner.“

Source: Berliner Verkehrsbetriebe, Donath



About CreaLog

A cutting-edge company with all the best references, CreaLog is the leading vendor of speech dialog systems across 20 countries in Europe. Fully web-administrative, the CreaLog Voice XML Platform is on stream with a total of 41,000 installed lines at more than 400 customers from over 30 branches of industry.

Voice portals from CreaLog ensure the highest standard of dialog quality on the basis of natural language speech recognition. Which means the portals are able to recognize and intelligently process a large number of words and whole sentences in more than 40 languages. What's more, CreaLog Portals support human-sounding text-to-speech systems from the world's leading providers. The Voice Portal, Unified Messaging, and CTI Solutions for corporate customers and telecoms won Best of CeBIT Awards in 2005, 2006 and 2008 for the products 'Interactive Voice Video Response' and 'VoiceBot', a natural-language information, FAQ and chat application.

Our clients include major corporations such as HypoVereinsbank, PAYBACK and the Sparda Banks, German interactive TV channels such as 1-2-3.tv and Premiere, and value-added service providers such as ARCOR and Telekom Austria TA AG.

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