Open Source PBX Reduces Operating Costs, Improves Scalability And Maintenance, And Delivers High Functionality To Meet City Of Schoten's Telephony Needs

Around the world, organizations are conscious about IT spending and are continually evaluating ways to slash their operating expenses while keeping up with the latest technological trends. The City of Schoten, a city of 33,000 inhabitants located in the heart of Belgium, recently migrated from 15 disparate telephone systems to an open-source PBX solution to reduce operating and maintenance costs and gain greater functionality to meet their telephony needs. Moving to Digium's Asterisk, the organization expects to save nearly $50,000* annually while reaping the rewards of a robust IP-based telephony solution.

Managing Information Communication Technology (ICT) needs for the city are three full-time personnel who maintain technology solutions for 400 staff members spread across 15 locations. With over 200 desktops and 20 servers, ICT personnel also need to maintain the telephone systems across the various municipal locations.

"Throughout our locations, we have an old telephone system that is very difficult and expensive to maintain," explains Jan Verlinden, system engineer and IT manager for the city. "Every year we are growing and need to add new telephones. When I examined the costs associated with maintaining and managing our telephone system, I knew there had to be a better, less expensive solution."

Prohibitive Communication Costs Increase Incrementally Annually

In Europe, telephone communication costs are much more expensive than in the U.S., with the city of Schoten spending over $120,000 per year in telephone expenses. Verlinden estimates nearly 30 percent of that was spent communicating with internal personnel across various city departments.

"If somebody at city hall wanted to call a colleague at the police department, the city would incur a communication cost," he said. "With the telephone system we were using, we also had expensive maintenance costs totaling approximately $18,000 each year. The expenses were just too high and we wanted to reduce that while utilizing one system across our organization."

Verlinden knew they could meet their goals of reducing operating costs by moving to a system-wide VoIP solution that would use a computer, rather than a telephone line, to meet their communication needs. By migrating to a VoIP solution, the city would immediately eradicate any internal communication charges and significantly reduce overall maintenance expenses while gaining increased performance.

"The moment we started to use VoIP, we saved $24,000 annually by eliminating internal communications," said Verlinden. "We saw immediately that we could save an enormous amount of money and improve overall functionality."

Open Source PBX Delivers High Functionality and Performance

Verlinden set out to replace the city's telephone solution and looked at eight various proprietary solutions, ultimately choosing Digium's Asterisk, the industry's first open source PBX solution. Digium solutions reduce the costs of traditional TDM and VoIP implementations through open source, standards-based software and next-generation gateways media servers, and application servers.

The city of Schoten purchased two Asterisk servers to ensure efficient performance and redundancy. Part of that plan includes maintaining a connection to the public telephone network as well. Verlinden notes that the installation of their solution was easy and did not require any broad based programming knowledge. Through the solution's intuitive GUI, Verlinden is able to easily add applications and extend the solution.

"The advantage of Asterisk is that you gain a very strong processing server that can process telephone calls much more quickly than any other VoIP system," said Verlinden.

Verlinden notes that installation was easy and using a VoIP provider, they were able to connect soft phones and be operational after only 15 minutes. One of the benefits of choosing an open source solution was the ability to use free soft phones – an application that enables a desktop to function as a telephone – as opposed to needing to purchase proprietary software.

"It is not technically possible to connect a free soft phone with a proprietary system – they require you to use their own proprietary soft phone," said Verlinden. "One of the proprietary system vendors estimated soft phone costs at $18,000. When there are at least 15 freely available, I want to be able to use one of them to connect to the Internet."

Asterisk Enables Easy Application Integration

Another benefit of choosing Digium's Asterisk is the high scalability of the solution. Verlinden notes that it is easy to connect different systems and solutions and that many of the proprietary solutions are limited in comparison.

"In our old system, we were unable to have an Interactive Voice Response (IVR) system without having a bigger system or purchasing an expensive piece of hardware," he said. "In Asterisk, it is very easy to configure and we are able to put our own departmentalized messages on it."

With loads of programs on the weekends and other special events, having a solution that enables effective communication for residents is operationally beneficial for the city. Also connected to the solution is an open source customer relationship management (CRM) database solution. Phone numbers that are in the database can be accessed using Asterisk, creating further efficiencies. In the future, the city is planning to use their geographical information system with Asterisk so when events such as the city's annual dance festival wreak traffic havoc on city streets, residents will be alerted via phone about parking restrictions and alternate routes.

Verlinden notes that such functionality would be either technically impossible or prohibitively expensive with other solutions. Using the Asterisk solution from Digium, departmental moves are also easier.

"Our old telephone solution had 15 systems and it was never easy to move somebody," said Verlinden. "You needed to extend the system with a new piece of hardware and you would have to physically install everything again. It is a lot of manipulation. With Asterisk, even if a whole department moves, it is incredibly easy. We just configure a new phone and there is no further manipulation."

Verlinden is pleased with their decision to choose Digium's open source solution and is impressed with Asterisk's maturity, quality of code and reliability. Plus, with so many developers working on the code, Verlinden is confident he will be ability to easily take advantage of future functionalities that he might have missed if he had chosen a proprietary solution.

"People need to understand what Asterisk can do and should know that there is an alternative to proprietary systems," concludes Verlinden. "If they calculate the return on investment as well as the increased functionalities that already exist in Asterisk, they too will see that Asterisk is a present from heaven."

*Dollar figures converted from Euros