

COMUNE di CASALECCHIO di RENO



CASE STUDY

SWITCHVOX

OVERVIEW

A city of 35,000 people in northern Italy, Comune di Casalecchio di Reno in Bologna sought to replace their four older-model analog PBX switchboards with a dynamic new central telecommunications hardware appliance they could integrate seamlessly into their current infrastructure. The new system would need to solve a number of current problems that included replacing an aging, technologically inferior, and unstable telephone system. It needed to be easy to manage and provide the newest telephony and VoIP features. This requirement was particularly important given that the local government organization handled an internal network consisting of five remote divisional offices throughout the city. These included sixteen schools; the Bureau of Culture, which manages youth programs, the library, and theatrical arts; the department of Logistics or Public Relations, who disseminates information to the public; as well as police, fire, and emergency management. The old system was inadequate, incapable of providing cross platform communications such as voice mail, email notifications, IM, and call queues; but it was also grossly inefficient, slow, cumbersome, and erratic. Several times a day, the system overloaded and communication jammed, requiring a complete manual rebooting of the four PBXs.

With an Information Communications Technology (ICT) budget of \$840,000 (U.S.), Comune di Casalecchio spent four months analyzing a wide variety of telephone systems and digital options before contracting with Digium to install a Switchvox communications solution that met their budget requirements, while providing over and above the City's pre-set purchasing criteria:

- The ability to set up the system using their own technicians with minor local IT support
- A system that was user-friendly to non-technical personnel
- Mobility of the equipment
- Management of IVRs with Time Clause & Call Logs
- Robust Call Queues

Switchvox also provided a wide range of advanced features that were beyond the original criteria, but that offered additional efficiency for little or no extra cost. After nine months of use, Casalecchio city employees have a stable system that is easy to use. In the words of Andrea Ventura, Casalecchio ICT Manager, "Now we reach our goals and we are supported by an easy and professional product."

Switchvox Integrated Web Applications Offer Telephony Solutions to Metropolitan European City

CHALLENGES

Comune di Casalecchio di Reno serves a metropolitan area of 35,000 people, providing them with hundreds of community and civic services. A city's residents are dependent on its administrative body for governance, education, public safety, taxation, transportation, health, sanitation, and cultural support among others. Casalecchio's current Mayor Simone Gamberini, the City Council, City Planning Board, and many other departments have a duty to make themselves accessible to the people of their community at all times for questions, complaints, ideas, mandates, and contributions. They have a mission to keep the people safe and to provide a contingency plan in the event of emergencies in which the police, fire departments, and emergency first responders can be summoned at a moment's notice.

As a result, Casalecchio's telephone system manages a high volume of calls both internally from within the administrative framework and its remote divisions; as well as from the outside: residents calling with questions about taxes, court dates, legal problems, licensing, and general questions; businesses, news agencies, economic advisory teams, and of course constituents. A city government is a very busy place and according to Andrea Ventura, "A municipality cannot afford telephone black-out."

Comune di Casalecchio di Reno was experiencing numerous problems with their old analog PBX phone system. ICT technicians had limited management of their two Interactive Voice Responders (IVR) and had no call queues, time clause management, or voice mail. Without intro prompts to direct calls into ring groups, a busy phone threw the call into a "hold" pattern, with no way back into the call group after the line opened. Without direct answer or time clause management, the call continued to float unanswered, and eventually dropped. Without voice mail, there was no answering system to grab the call. Furthermore, without call queues, callers were not being moved along the queue as lines opened. Additionally, without detailed logging features, it was impossible to know what calls were coming into the system, or their status.

The Casalecchio system was not so old that callers received a busy signal - in fact, it would have been better if they had. The problems with the old system were not its age, but its lack of technological capability and call capacity. Instead of providing a busy tone so callers could call back later, the system either dropped calls or left calls floating in space, overloading the system and eventually crashing the entire phone structure.

The system suffered this calamity four or five times per week.

Rebooting the system was not a quick and easy fix. It required a manual procedure that took a minimum of ten minutes. No one could get through while the phones reset and these events occurred several times a day. By the time citizens reached their party, they were often so angry about their prolonged attempt to get through on the phone; their initial purpose for calling was secondary.

Another problem the city of Casalecchio faced was complex procedures for installing new phones or moving existing phones. Poor cable mapping made for 2 to 3 days of work for a contract technician who came in to set up a new phone for an employee, or to move a phone to a different location.

SOLUTIONS

After four months of shopping telephone systems and performing in-depth analyses of the most advanced technological options available, Comune di Casalecchio di Reno partnered with Digium to provide a solution to their communications needs. They based their decision on:

- Budget
- A list of predetermined features and criteria
- Purchasing a system they could manage and operate themselves after buying and installing the equipment
- Requiring only a local Italian partner who could support them on a quick and professional basis if there were any issues

Comune di Casalecchio di Reno had no voice mail, no video conferencing, no call management, and no integration with their computer configuration. Digium won the job primarily because Switchvox is an excellent VoIP phone system that leads the pack when it comes to integration with web applications that help businesses succeed. However, Switchvox had built-in expansion features that went beyond Casalecchio's requirements – in other words, Switchvox over-delivered with a VoIP phone system that went beyond expectations.

RESULTS

The lack of controlled management over the two IVRs was a serious problem. Programmed by a Casalecchio technician, Digium's single Switchvox easy IVR, also known as an auto-attendant, provides an automated menu system that greets and interacts with callers. More than an automated voice, the IVR provides the caller with information: "Thank you for calling Comune di Casalecchio di Reno. Listen closely to the menu so we can quickly direct your call to the appropriate department." The system also collects information from the caller: "If you are calling to renew your car tag registration, please enter your registration number now by pressing the numbers on your telephone keypad." The information entered will direct the caller to the correct extension.

The Switchvox queue management feature was one of the City's primary directives. The feature queues members and managers with real-time synchronous and message-based status information for any call in queue. Switchvox displays detailed information about what calls are coming in, which calls are unanswered, and which calls are on hold.

Queue management also displays statistical information, kept up to date to quickly spot anomalies or changes in call patterns in order to make adjustments. City administrators know immediately whether there is a spike in call volume.

No more long waits to move or replace telephones. With mapping provided when the new Digium system was installed, adding a new phone takes minutes rather than days.

Activated and deactivated at a touch, Switchvox lets City administrators easily set call rules. These rules control calls that come in after-hours and on weekends, or immediately sends calls to voicemail under set circumstances.

Detailed logging provides ongoing records showing what the system is doing. The attendant can see the logs in real-time or pull a log periodically for review.

The private telephone lines previously used at all five of Casalecchio's remote locations including the schools, were replaced with computer (wireless) High Performance Radio (HIPER) LAN networks, eliminating the need for excessive wiring and various cable materials. All of them have one or more IP phones connected with their new PBX, and those remote locations can now make calls using a link to Casalecchio's telephony provider, initiating significant cost savings of about \$14,000 per year.

Digium's new Switchvox 355 system let Casalecchio connect up to 400 users through one central hardware appliance. The City took advantage of 330 IP phones across five remote locations including 16 schools. As an added bonus, they were able to integrate voice, fax, CRM, chat, and Google Maps, all in a single system with the intuitive power of a switchboard.

The Switchvox system allows administrators to configure soft phones on their HIPER LAN to area schools, so they can make telephone calls over the Internet with a computer and headphones, rather than using dedicated hardware. They also have virtual extensions configured to dial external POTS numbers for their off-site locations and for citizens calling in from analog phones.

Each extension now has a one-stop IMAP Mailbox for voicemail and faxes.

RESULTS

After a thorough investigation of their options, according to Ventura, "We contacted different companies who showed us different PBX systems, but we found in Digium, all the features we wanted within the budget we had allocated."

The citizens and city administrators of Comune di Casalecchio di Reno are experiencing a technological boom in telecommunications with the versatile and dynamic Digium Switchvox application.

Digium's vision is a world based upon open communications.

Our mission is to transform the way businesses acquire and operate their communications systems through the application of open source software.



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