

More than a phone system.  
It's a better way to communicate—and save.

# Switchvox<sup>®</sup>

Unified Communications

  
**digium**<sup>®</sup>  
The Asterisk Company

# Clear Creek Telephone and Television

## Objectives:

Replace their existing ComDial system with a web-centric phone system with VoIP functionality — a robust system that requires minimal support, and is easy to use. Seeking a centralized IP PBX hardware appliance answerable from 8:00 a.m. until 5:00 p.m. by a live attendant. Must offer the convenience and flexibility of full integration with their IT infrastructure; and provide customizable options, email notification, auto-forwarding, overflow support, etc.



**“In terms of cost ...by the time we purchased another system and added on all the individual items not offered with [competitor’s] hardware appliances, it would be five times the price we paid for Switchvox.”**

**Rick Lundh**

IT Manager  
Clear Creek Telephone  
& Television

**Challenges:**

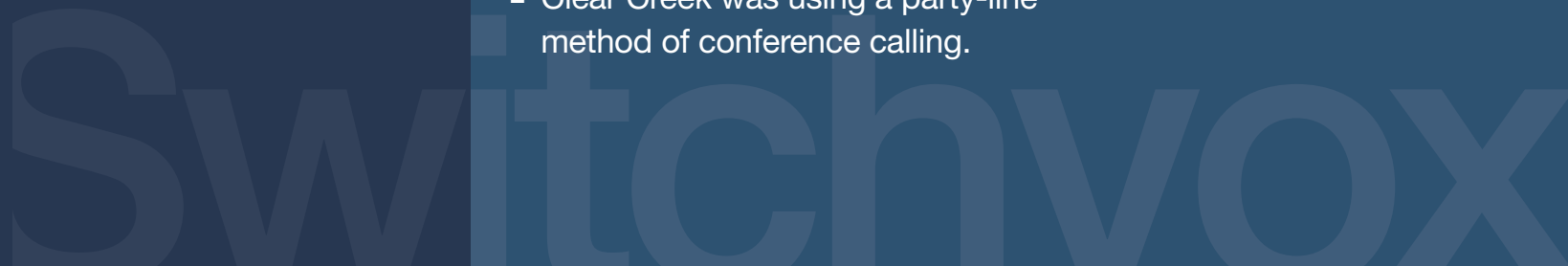
Clear Creek T&TV had a long list of complications:

- The system constantly needed maintenance and repair
- Not only was it hard to find anyone who would work on the system, the only Clear Creek employee who was familiar with the system retired.
- Inability to purchase compatible equipment because most of it was discontinued.
- Integration into any of their existing IT applications was impossible.
- As a standalone system, it offered voice mail with very limited features.
- Programming messaging was complicated and required a small booklet of steps.
- Clear Creek was using a party-line method of conference calling.

**Solution:**

**Switchvox 355.**

Designed to deliver voice or video over a data network, the Digium Switchvox 355 with 30 Polycom 670 Expansion Module IP phones provided all employees with the same phones making replacements a flash. The expansion module also allows for additional phones. The solution allowed Clear Creek to completely abandon their POTS lines and run everything off DSL.





## Results:

The Digium Switchvox 355 has many of the competitor's a la carte features built into the single, web-centric, IP PBX with integrated Switchboard. All of the features are built into the base price. Integrated into the company IT infrastructure, the Switchvox Switchboard is easy to learn, and the IVR tree helps the administrator customize individual greetings and immediately route calls without hassle from the main IP PBX.

## About the Company:

### Clear Creek Telephone & TV

Clear Creek Telephone & Television is located in Oregon City, Oregon, just south of Portland. Forming a co-op in the early 1900s, for more than 100 years, Clear Creek T&TV has provided telephone service to businesses and residents of Oregon City and Redland, Oregon. Today they provide cable and Internet services as well.

### Phone system being replaced:

17-year-old ComDial system

### Other solutions considered:

Shoretel

“What is nice about the Switchvox system is how easy it was for our employees to learn it.”

### Rick Lundh

IT Manager

Clear Creek Telephone & Television

# 1st Guard Corporation

## Objectives:

Replace an aging phone system with one that provides better business continuity; improves disaster-recovery operations; integrates smoothly into existing IT infrastructure; provides relatively easy implementation; and is scalable for future growth.



**1st Guard tested every nuance of the Digium system (via in-house demo), and within two weeks, they were sold.**

## **Challenges:**

1. Overcome an aging, proprietary Avaya IP Office system:
  - Proprietary Avaya equipment was more expensive and incompatible with long term IT growth strategy.
  - Avaya had 1st Guard hardware-locked. In-house software applications and softphones did not function fully, or at all.
  - Avaya only ran on a Windows® platform and could not be integrated into a Macintosh® or Unix operating system.
2. Needed a reliable back-up system:
  - A secondary Cold Spare was needed to link the corporate headquarters in Venice to Dallas operations via an open API (Application Programming Interface)
  - At the “flip of a switch”, 1st Guard could pick up operations in the event of fire, natural disaster, or any other catastrophic event.

## **Solution:**

### **Switchvox and Polycom and Bria phones.**

Digium’s Switchvox SMB 4.6 was paired with a couple of Polycom phones for use in the executive offices. Bria softphones by Counterpath were installed for the customer service representatives which provided a next-generation softphone application allowing 1st Guard to make VoIP and video calls over IP from their computer desktop, and allowing 1st Guard to replace their outdated Avaya phones.

Once Switchvox was installed, concerns about integrating the company’s “homegrown” business applications were immediately alleviated due to Switchvox’s easy integration points.

By setting up a Switchvox 305 Cold Spare VoIP PBX appliance in their Dallas location, the disaster recovery problem was also quickly resolved.





## Results:

The Switchvox SMB 4.6 and Switchvox 305 Cold Spare VoIP PBX appliance helped 1st Guard improve business continuity and implement disaster-recovery operations, while integrating smoothly into existing IT infrastructure for relatively easy implementation.

## About the Company:

### 1st Guard Corporation

1st Guard Corporation is a specialty truck insurer located in Venice, Florida offering a variety of insurance-related products and services to their clients throughout most of the Lower 48. They have 18 fulltime employees and posted annual revenue in excess of \$20 million.

### Phone system being replaced:

Avaya IP Office

### Other solutions considered:

Hosted in the cloud 5Nine solution

Cisco solution

“When the Switchvox system arrived, it came as a single rack system in a box. If we had purchased the same ‘add-ons’ to the Cisco system that come included in the single Switchvox system, we would have paid three times the money...”

**Dan Ribar**, CIO

1st Guard Corporation

# Comune di Casalecchio di Reno

## Objectives:

Replace four older-model analog PBX switchboards with a dynamic new central telecommunications hardware appliance that integrates seamlessly into the current infrastructure, solving a number of problems, including replacing an aging, technologically inferior, and unstable telephone system.



## Challenges:

1. Must be able to manage a high volume of internal calls from within the administrative framework: Mayor's office, the City Council, City Planning Board and other internal divisions, including 16 schools.
2. Must be able to manage a high volume of external calls from residents needing information on taxes, court dates, legal problems, and licensing; and calls from businesses, news agencies, economic advisory teams, and constituents.
3. Poor cable mapping made installing new phones or moving existing phones a complex procedure that took several days of work.
4. The outdated analog system was technologically inferior and unstable, with problems including:
  - Limited management of Interactive Voice Responders (IVR)
  - Calls that floated and eventually dropped.
  - Missing critical features, such as voicemail, call queues, intro prompts and detailed logging.
  - Frequent system overloads that eventually crashed the entire phone structure — a calamity that occurred four or five times per week.
  - Rebooting the system required a lengthy, manual procedure that prevented calls from coming through while the phones reset. This occurred several times a day.

## The solution must be:

- Easy to manage
- Provide the newest telephony and VoIP features
- Capable of being set up using in-house technicians with minor local IT support
- User-friendly to non-technical personnel
- Mobile in terms of equipment

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

## **Solution:**

### **Switchvox 355 with existing IP phones.**

Digium's new Switchvox SMB 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.

# Switchvox



## Results:

In Digium Switchvox, Comune di Casalecchio di Reno found all the features they needed, plus a wide range of advanced features that were beyond the original criteria, offering additional efficiency for little or no extra cost and within the allocated budget. After nine months of use, Casalecchio city employees have a stable system that is easy to use.

## About the Company:

### Comune di Casalecchio di Reno

A city of 35,000 people in northern Italy, Comune di Casalecchio di Reno in Bologna serves a metropolitan area of 35,000 people, providing them with hundreds of community and civil 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.

### Phone system being replaced:

Four older-model analog PBX switchboards

“A city government is a very busy place. A municipality cannot afford telephone blackout. Now we reach our goals and are supported by an easy and professional product.”

### Andrea Ventura

ICT Manager

Comune di Casalecchio di Reno

# Bisk Education

## Objectives:

Replace a digital Nortel PBX TS-1000 and eliminate an India-based hosted service for outgoing and international calling. Switch to a single in-house IP solution that reduces costs and easily integrates into the existing IT infrastructure.



**Bisk has more functionality with Asterisk than they ever had before with the Nortel/Avaya product, and they don't have to pay individual fees for every individual feature. Instead, the licenses allow access to everything.**

## **Challenges:**

1. Following the purchase of Nortel by Avaya in 2009, business phone systems encountered operations problems that were left unresolved, making it impossible to provide Bisk with dependability of service and the flexibility they needed:
  - Integration issues between the two companies' phone systems (following the merger) made it impossible to correlate data across multiple systems.
  - Nortel costs continued to skyrocket as the two companies tried to reconcile operational issues
  - While Nortel and Avaya sought ways to make the components talk to each other, Bisk realized there was really no reason to consider an Avaya system. They needed a reliable, comprehensive solution that worked immediately.
  - Nortel PBX's IP capabilities were for remote monitoring only and could not use it for internal communications due to its limitations.
2. Bisk was contracted to a company in India for all their outgoing and international calls, with high costs attached.

## **Solution:**

### **Asterisk open source communications engine.**

A single solution, Digium's Asterisk IP PBX solution easily integrated with Bisk's other equipment and software, without worry of compatibility. There was no reason to continue considering Avaya or trying to integrate any other solutions. By eliminating Avaya and replacing it with open source Asterisk software, they were able to bridge the gap Avaya was struggling to accomplish.

Switchvox



## Results:

Asterisk saved money across the board because the individual licensing fees attached to individual features are all included in the single Asterisk solution. By using SIP trunks, Bisk was able to make Asterisk talk to Europe, saving many hours in time and more than \$150,000 in costs.

“Asterisk is a powerful but affordable and flexible solution to all three of Bisk’s priorities. To say they saved us money is a no-brainer. We are talking about savings of well over \$150,000.00 in licensing alone.

### **Calvin Wells**

Director of Network Operations & Engineering  
Bisk Education

## About the Company:

### **Bisk Education**

Bisk Education, located in Tampa, Florida, offers technical support as an online facilitator of accredited college degrees and certifications from leading universities across the United States. Today, Bisk Education manages the online business curriculum for a number of major “brick and mortar” U.S. colleges including Tulane University, the University of Notre Dame, and Villanova University, to name a few. They offer undergraduate and Master’s degree programs, and professional certifications in a number of fields for students worldwide. The Tampa facility has 765 employees, of which a little over half make up the 400-person recruiting and student-support call center.

### **Phone system being replaced:**

Digital Nortel PBX TS-1000

India-based international long distance provider

### **Other solutions considered:**

Avaya

# Greenberg & Co.



## Objectives:

Replace an obsolete Nitusko/NEC system with a unique VoIP telephone system that is flexible enough to accommodate multiple phone lines, including international calling, and at the lowest possible cost.

**The new system had to work invisibly; requiring little if any training; and needed to produce high-quality sound across all systems.**

## **Challenges:**

1. Need a phone system capable of handling a high volume of unique calls per day, based on a centralized switchboard that:
  - Supports business-critical VoIP functionality, including full VoIP and mobile access internationally.
  - Includes ability to send voicemail to email, in addition to supporting many other business-critical VoIP functions.
2. Must scale without requiring a significant investment every time they add a phone, move offices, or add international clients.
3. It must provide a seamless and efficient, but economical, means for high-volume international calling.
4. The ability to conference call from anywhere in the world.

## **Solution:**

### **Switchvox 65 IP PBX**

The Digium Switchvox 65 IP PBX solution was merged with Asterisk to provide desired features — all within one Digium Switchvox system. Because the system was capable of handling the unique feature requirements, it was simple to efficiently and economically make the transition.

Using SIP trunks proved to be the most economical means for assuring the highest level of system performance. Their Internet connectivity was greatly enhanced by allocating a portion of their service to an ITSP (Internet Telephony Service Provider), and the SIP trunks let them use VoIP outside the enterprise network by the same Internet connection. This allowed them support for eight or more simultaneous conversations, locally and internationally.

Switchvox



## Results:

The totality of the Switchvox/Asterisk product application solved the problem of high international calling rates; created the ability to facilitate inbound, outbound, and across-network conference calling without overloading the system; and provided an expandable solution that easily integrated into the company's IT infrastructure. Digium Switchvox, along with Asterisk, solved the more complex requirements of Greenberg's telephony needs, addressing all of their concerns.

“What I like about the Digium solution and when using the open source technology of Asterisk is that when I explained not just what I have to have, but what I want to have if it is possible... they were able to make it work with Switchvox!”

### **Daniel Greenberg**

Attorney at Law  
Greenberg & Co.

## About the Company:

### **Greenberg & Co.**

Greenberg & Co. is a small boutique commercial law firm located in Shelton, Connecticut, whom feeling their growth potential stifled by a weak local economy and growing anti-business regulatory burdens in the United States for his 15 international entrepreneurial clients, sought a way to diversify. After passing the Qualified Lawyers Transfer Test (Solicitors Examination for credentials in England and Wales) Greenberg opened a satellite office (under the name Greenberg & Co. Solicitors LTD) on the island of Tortola, the largest island in the Virgin Island archipelago, and the financial center of the British Virgin Islands.

### **Phone system being replaced:**

Nitusko/NEC

### **Other solutions considered:**

Evaluated six vendors, then narrowed down to three before selecting Switchvox.

# Universities of Portugal

## Objectives:

Reduce communications costs by at least 20 percent for the Portuguese system of public higher education. In doing so, developing a highly competitive, web-centric, VoIP solution throughout Portugal's 48 colleges, universities, and Polytechnical institutions, with the prospect of replicating the application in other scenarios, both nationally and internationally.



**The implementation provides centralized management and billing of both the legacy and Digium Switchvox with Asterisk system, while supporting an infrastructure that processes seven million monthly calls.**

## **Challenges:**

1. Meet the mandated two-year window for completion of this highly complex assignment, accomplishing it in three distinct phases: transition 33 schools in the first three months of the project; eight schools in the second phase; and seven schools in the third and final phase.
2. The public higher education system had a high performance gigabit network in place, but they were not using it for telephony.
3. The public higher education system was running telecommunications off a traditional legacy PBX telephone system utilizing 220 PBXs, some of which were not in the best of condition.

## **Solution:**

By utilizing Digium's open source Asterisk software with a Switchvox IP PBX system, they were able to maintain their existing legacy hardware while gaining IP capability simply by converting analog audio signals to digital for transmission. The ITCenter did this by using Asterisk and OpenSER to develop a compatible system where the VoIP system intercepted calls between the standard, old telephone service (POTS) legacy PBX and the Public Switched Telephone Network (PSTN). Incoming calls were then automatically routed by the Internet, transparently with zero impact to the user.

Switchvox



## Results:

Utilizing a technical team of 10 technicians who hold a variety of certifications in the technologies on which open source IP solutions are based, they transformed Portugal's higher education system into the most advanced telephony system in Portugal. At the same time, they met all the financial expectations and economic savings objectives outlined by FCCN. They also decreased costs from €4 million to €3.3 million, for an annual reduction of €1.7 million.

## About the Company:

### Universities of Portugal

Proposed by the Portuguese Ministry of Science, Technology, and Higher Education, and funded by the Portuguese government through the Foundation for National Scientific Computation (FCCN); FCCN manages and develops the national network of communications in high-speed data and scientific systems of higher education (RCTS) for Portugal's 48 colleges, universities, and Polytechnical institutions.

### Phone system being replaced:

220 traditional analog legacy PBXs

“We want to share the success of this endeavor and use the FCCN/RCTS job as an example so other government entities, including those in the United States, can see what can be done in terms of highly advanced communications that decrease overall costs.”

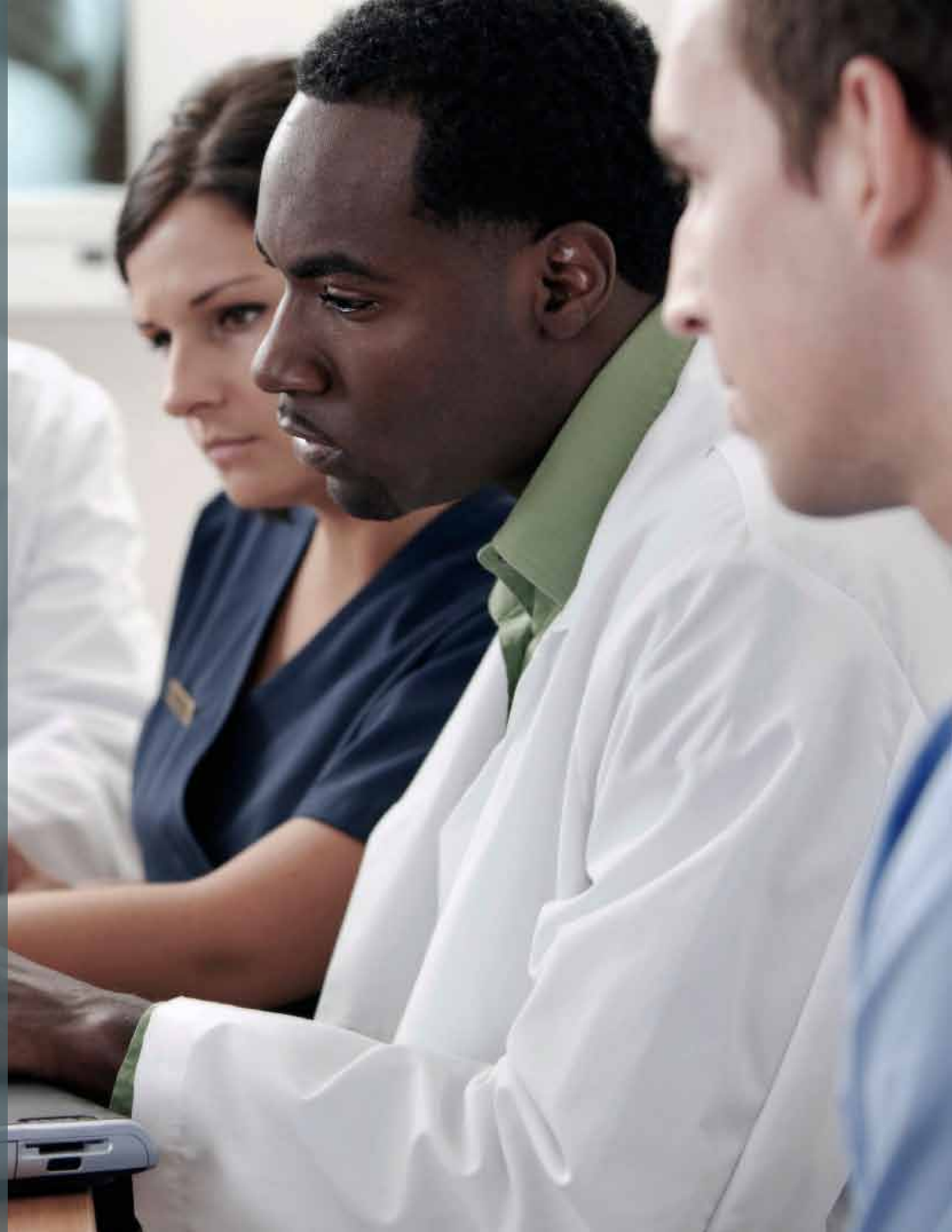
**Ruben Sousa**, Founding Partner & CTO

ITCenter

# Strategic Health Care

## Objectives:

Eliminate the crushing costs of outsourcing a hosted IP telephony solution that averages \$70 to \$80 per user, per month. Strategic Health Care needs a cost-effective replacement system to bring their telecommunications in-house.



**Digium Switchvox and Asterisk were easier to execute than originally thought possible. Not only is it flexible and expandable leaving plenty of room to grow, but also it cut costs drastically, which was one of the main objectives of the project.**

## **Challenges:**

Strategic Health Care had an existing, up-to-date telephony system with advanced features. The health care organization needed to keep the same features, but wanted to significantly reduce the costs associated with a comparable solution. At the same time, Strategic Health Care decided to bring the management of their IT needs in-house, in yet another effort to better manage costs

## **Solution:**

**Switchvox SMB with Asterisk**  
Strategic Health Care implemented Digium's Switchvox SMB along with Asterisk. This solution meant keeping features the support team needed, while still reducing costs. They purchased Digium Switchvox SMB right out of the box, expecting to have to reconfigure the phone set-up and reset the entire phone system to Switchvox specifications. However, the simplicity of the solution allowed Strategic Health Care to proceed without requiring additional technical support needed for installation.

Switchvox



## Results:

Eliminated more than \$2,100 (per month), or approximately \$25,000 a year in user fees by replacing their hosted phone system with the Digium Switchvox and Asterisk solution. They were able to continue using their proprietary software by entering through a web portal where their customer support team could perform all their functions online, including building reports and documenting customer issues.

## About the Company:

### Strategic Health Care

Strategic Health Care in Santa Barbara, California is an information intelligence solution offering real-time analytical data for the healthcare industry.

### Phone system being replaced:

Outsourced, hosted IT-based system called Clear Star by Impulse Advanced Communications

### Other solutions considered:

Considered several Web-hosted in the cloud IP systems

Considered an approach to renegotiate costs with existing hosted solution, Clear Star

“We are now looking at a cost of \$70 per year, as opposed to \$70 per person per month — plus the cost of equipment. The savings off the top alone are impressive.”

### Cevin Doppmann

Strategic Health Care

# Roxbury Preparatory Charter School

## Objectives:

Replace an aging NEC digital system, with a VoIP system that allows phone calls and messages to be sent to each teacher, regardless of classroom location. It is an effort to significantly change telecommunications to benefit the students and the staff; provide unique paging and conferencing functionality; and provide emergency 911-classroom access — all while saving money.



**Offering unified messaging and conferencing, the SMB Switchvox 305 came bundled with a subscription plan and warranty. Designed for small businesses looking for the power of a server-class PBX, the SMB Switchvox 305 supports up to 10 concurrent recorded calls and up to 15 simultaneous conference users.**

## **Challenges:**

1. Without the existence of an IP-capable system prior to the expansion, the data network had to be built from scratch. This involved re-cabling the entire third floor of the building, and wiring previously unused areas.
2. Construction began prior to the start of school, but it extended several weeks into the start of the school year making the installation awkward because the environment had to be safe for the kids.

## **Solution:**

### **Switchvox 305**

Digium's Switchvox SMB 305 PBX appliance was selected because it uses a single PRI (Primary Rate Interface), and offers unified messaging and conferencing. They designed a centralized PBX for answering all incoming calls with the main extension configured with cascading call groups. The administrator can send calls to the classroom, or directly to the teacher via their iPhone, Blackberry, or other mobile device.

Switchvox



## Results:

Roxbury is a very progressive school and wanted a high-end telephony solution that is flexible and cost-effective. Switchvox gave Roxbury the ability to get phone messages to teachers regardless of their teaching location, while also sending messages more quickly and in a less intrusive manner. Unique paging functionality allows administrators to page room to room, in zones, or in all rooms at once; and teachers can dial 911 from their workstation inside the classroom.

## About the Company:

### **Roxbury Preparatory Charter School**

Located in Roxbury, Massachusetts, Roxbury Preparatory Charter School currently sits in an inner city neighborhood of Boston called Mission Hill. As a successful charter school for sixth through eighth graders, Roxbury recently doubled in size, expanding its facility from a handful of rooms located on the third floor of the Edgar Benjamin Health Care Center, to taking over the entire third floor.

### **Phone system being replaced:**

NEC digital system

“The phones were already crazy here, but after increasing to over two hundred fifty students, significantly expanding the facility, and adding ten more teachers, we had to look at a more pliable solution. Digium’s Switchvox met all our requirements and more.”

**Sheri Cheng**, Technical director  
Roxbury Preparatory Charter School



## Digium®. We're changing the way businesses communicate.

Founded in 1999, Digium is the creator and primary developer of Asterisk, the industry's first open source telephony platform. More than one million customers in 125 countries have deployed Asterisk-based systems. Digium is committed to ending the days of expensive, proprietary telecom. The Switchvox family of Unified Communications solutions is built on Asterisk and is designed to provide enterprise class features at affordable prices for small and medium businesses.

The award-winning line of Switchvox IP PBX phone systems provides more than a phone system – it delivers a Unified Communications platform that integrates multiple features that increase productivity and lower monthly communication costs. It's the affordable solution with a proven return on investment for businesses with 10 to 400 users.

Learn more at [digium.com/switchvox](http://digium.com/switchvox)

### **Want more information on Switchvox?**

Take a virtual tour of this powerful Unified Communications platform:  
[www.digium.com/switchvox](http://www.digium.com/switchvox)

### **Contact us – we're here to help.**

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