MARIST

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New App Helps Rural Telecom Provider Enhance Service & Efficiency
GTel & Marist Collaborate Through Innovative Capstone Learning
Strategy & Private Sector Partnership

POUGHKEEPSIE, NY—When GTel, a regional telecommunications provider in rural Columbia County, needed help streamlining processes to provide better service to its customers, the company entered into an innovative partnership with Marist College in Poughkeepsie.

Marist students, under the guidance of computer science Professor Christopher Algozzine, developed the GTel mobile app as part of a Capstone Project for graduating seniors. The app automates tasks for the line workers, streamlining various services for customers. "Previously, the line workers had to manually record serial numbers from networking equipment while onsite at people's homes and businesses, then call back to the main office, relay the information, ask for assistance, and discuss the results of certain tests over the phone with another technician," said Algozzine. "Now those steps are handled by the application: the tech onsite is able to enter the serial number, or simply search for the device in the system by typing in a name or address. Then they can perform the diagnostics, reset passwords, reset lines, or even reboot or factory reset the devices without any need to call the technician in the home office."

The application does all of this by sending secure network transaction requests from the technician's smart phone, across the internet, to the servers in the G-TEL home office.

GTel estimates the app has improved time-to-solution for the line techs by as much as 20 minutes per dispatch. It has also allowed technicians in the main office to work on deployments, equipment provisioning, and other maintenance tasks. "The biggest benefit of this collaboration and resulting app has been better service to customers and a boost to line techs in the field. The workers in the field now have more control and a greater ability to solve problems unassisted *and* faster. Everyone wins," said General Manager Frank Boscarillo of GTel.

GTel welcomed the partnership with past Marist alumnus and current employee Devin Overington leading the way. With a strong commitment from company ownership and management, Algozzine's Capstone Project focused on efficiency of service delivery in the field, an objective important to the company serving a large geographic and rural area with broadband and other communications related products. Overington brought valued Capstone Program experience to the partnership making him and GTel the perfect industry partner. The final product represents workforce/skills development uniquely crafted with a focused delivery of results and defined deliverables in need by the private sector.

"As a fourth-generation family business, this collaboration with Marist, with our valued employee Devin Overington, was extremely rewarding. As a company we enjoyed an end result which enables us to better serve our customers, while exploring a unique approach to workforce development and improving company efficiencies," said GTel President Bruce Bohnsack.

"The Capstone Course is a hands-on experience, usually project based, in partnership with a private sector company or not-for-profit organization. It's an important facet of a Marist education," said Roger Norton, Dean of the School of Computer Science and Mathematics at Marist. "The Capstone is designed to test and apply the knowledge that has been delivered to a student in the first three years of their quality education. The overriding goal is to have students engage in a real life application of newly gained skills and showcase that they have absorbed important techniques and approaches to prove that they have learned their intended craft."

"As a Marist graduate myself, I am fully committed to the Marist mission to help students develop the intellect, character, and skills required for enlightened, ethical and productive lives in the global community of the 21st century. The Capstone Program and educational agenda is a successful strategic approach to achieve these lofty and vital goals," said Algozzine.

"My personal experience taking the capping course under Professor Algozzine's leadership and with my current studies in the graduate program, enabled me to help my employer with very specific operational challenges. I am especially proud of the developed GTel app and the wonderful education Marist has provided me to embrace professional challenges," said Overington.

The GTel Service Automation Application created is now deployed and available on the web for any company employee with valid security credentials to use as a means of diagnosing and repairing service issues with their clients at their homes.

About Marist
Located on the banks of the historic Hudson River, on Fifth Avenue in Manhattan, and at its Florence, Italy campus, Marist College is a comprehensive, independent institution grounded in the liberal arts. Its mission is to "help students develop the intellect, character, and skills

required for enlightened, ethical, and productive lives in the global community of the 21st century." Marist is consistently recognized for excellence by The Princeton Review (*Colleges That Create Futures* and *The Best 384 Colleges*), *U.S. News & World Report* (8th Best Regional University/North, 2nd Most Innovative School/North), *Kiplinger's Personal Finance* ("Best College Values"), and others. The College is top-ranked for long-term study abroad (#7 in the U.S.) by the U.S. State Department's *Open Doors* report. Marist educates more than 5,000 traditional-age undergraduate students and 1,400 adult and graduate students in 47 undergraduate majors and numerous graduate programs, including fully online MBA, MPA, MS, and MA degrees, and also Doctor of Physical Therapy and Physician Assistant programs. Pending accreditation approval, the College plans to open the Marist Health Quest School of Medicine in 2022. www.marist.edu

About GTEL
https://www2.gtel.net is a regional telecommunications company that provides phone, television, streaming and internet services to the mostly rural community around the Southern section of Columbia County, NY. From their website: Germantown Telephone Company became GTel in 2007. All voice, video and Internet services are now being marketed and sold under the GTel logo. Building upon the steady industry transition to an all Internet protocol (IP) world, GTel began offering IPTV video service in 2008. This broadband service offering will replace the existing analog CATV over the next several years. To deliver GTel customers the ever-increasing amount of bandwidth required for data and video today, in 2009 and 2010 G-TEL completed construction of Phase 1 and 2 of a Fiber-to-the-Home (FTTH) project. These two initial Phases totaled over 30 miles of fiber optic cable being placed throughout the service area which passes approximately 800 homes. In 2011 GTel placed into service a new MetaSwitch switching platform that will offer a host of IP voice services which will complement and expand the total IP platform of voice, video and data. Today GTel provides a full complement of truly state-of-the-art IP based services all with a full-time dedicated work force of seventeen employees. Telephone subscribers have grown from two telephones in 1905 to more than 2500 access lines in 2011, and after 83 years the company is still family owned and operated by the third and now fourth generation.

GTel has recently been the recipient of three grants as part of the New NY Broadband Program. The purpose of these grants is to lower the percentage of New Yorkers that are considered either unserved or underserved by broadband speed internet services. GTel's grant award includes over 5,000 individual locations, over 250 miles of fiber optic cabling and represents a total investment of around $12 Million.

Additional Facts

The GTel Service Automation Application created is now deployed and available on the web for any company employee with valid security credentials to use as a means of diagnosing and repairing service issues with their clients at their homes. This enables the technicians to provide a higher level of service and perform faster repairs, and reduces the number of calls they must place to the second level technicians working at the home office. This in turn has alleviated a tremendous amount of workload at the central office, allowing those technicians to pursue other network and service improvements.

The students that were involved in the project this past fall semester include:

Laura Florez-Raigosa, double major in Business Administration and Information Technology Systems, the IS professional and team leader

Robert Lynch, Information Technology Systems major concentrating on Technology, the IT Hardware professional and class of 2019 Baccalaureate in ITS

Jessica Reiger, Computer Science Software Development major, and the class of 2019 Baccalaureate in CS

Si Ya "Wendy" Ni, Computer Science Software Development major

Christian Santiago, Computer Science Software Development major

Jae Kyoung "LJ" Lee, Computer Science Software Development major

This team of six - four programmers, one IS team leader, and one IT hardware professional - worked with the client, understood their issues and desires, learned their software and hardware systems environment, designed and developed a working web-based application that is deployed in production today at GTel, and in use by their technicians as they provide customer support in the field to their clientele.