PAETEC Greatly Increases Efficiency with New Automated Notification System

Inventive Lab’s Voice Elements Toolkit with Dialogic® Host Media Processing Software Speeds Development

CASE SUMMARY

Challenge

Because its business has grown substantially, PAETEC needed to automate its notification system to handle calls more efficiently and save resources. To develop the new system in-house, PAETEC purchased an application development platform to accelerate system development. After investing considerable time and effort in the project, the development platform was found to have a show-stopping defect that forced PAETEC to consider other options.

Solution

After a quick, yet intensive search, PAETEC chose Inventive Lab’s Voice Elements platform, which allows programmers to create communications solutions very quickly with Microsoft® .NET Framework and Dialogic® Host Media Processing Software. Three weeks after starting to use Voice Elements, the PAETEC team successfully deployed the new automated notification system, which not only greatly improved workflow but also allowed PAETEC to reassign two service technicians to more productive duties.

Challenge

PAETEC personalizes communications for business customers across the United States, and offers a large portfolio of data, voice, and internet communications services, which include traditional TDM and next-generation SIP trunks. Seeking to be the most customer-focused communications provider in its industry, PAETEC sets very aggressive goals for handling service outages, such as those caused by a downed switch. During an outage, PAETEC alerts affected customers immediately and gives them hourly status updates until service is restored.

As its business grew, PAETEC decided to automate its outage notification system to increase efficiency and save resources, and purchased an application development platform from a third-party to accelerate system development. After the in-house development team invested considerable time and effort in the project, the development platform was found to have a show-stopping defect that forced PAETEC to consider other options.

Solution

After a quick, yet intensive search, PAETEC chose Inventive Lab’s Voice Elements platform to replace the defective development platform. Voice Elements allows programmers to create communications solutions very quickly with the Microsoft® .NET Framework and Dialogic® Host Media Processing (HMP) Software.
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How the PAETEC Notification System Works

In its new notification system, PAETEC uses proactive customer contact technology to record one message that is automatically propagated out to all customers affected by a service outage. This system also allows PAETEC to give very quick updates to its customers and keep them apprised of the outage situation, thus enhancing the world-class customer support that PAETEC always seeks to provide.

"With 75 lines in production, it takes us only three or four minutes to send out 75 calls," reports Caroline McLean, Lead Developer at PAETEC. "Within 10 to 15 minutes, all calls have been made, including retries, and the customers are offered the opportunity to transfer back to a technician to get more information."

Benefits of Using Voice Elements

The Voice Elements Toolkit proved to be an excellent choice for PAETEC’s automated notification system for the following reasons:

- **Ease of use** — With pre-configured application modules, sample code tutorials, and reporting features, which include call monitoring and logging, Voice Elements is a powerful, easy-to-use telephony service creation environment, and includes a “skeleton” application that can be easily modified to create a new application.

- **Robust enabling technology** — Voice Elements uses Dialogic HMP Software for media processing and leverages its rich feature set, which includes call control, call transfer, conferencing, transcoding, security, call progress analysis, and video. This robust enabling technology allows developers to use Voice Elements to create virtually any type of telephony application.

- **Microsoft® .NET Framework** — Because Voice Elements is built on the .NET Framework, companies can use their own internal .NET developers to quickly create automated telephony applications with Voice Elements. Developers without prior telephony experience can use Microsoft® Visual Studio® with Voice Elements to create telephony applications easily.

- **Affordability** — Voice Elements is especially affordable because it is licensed by the server without individual port royalties. Voice Elements also does not require specialized or proprietary knowledge, and allows telephony solutions to be built easily by the many developers already familiar with the .NET Framework.

Benefits of Using Dialogic® Enabling Technology

Solutions, such as Voice Elements, which are built on Dialogic HMP Software, also have special benefits. Because the Dialogic® product is software-based, many of the restrictions in using hardware media processing technology are eliminated. Dialogic HMP Software runs on standard servers, without specialized processors or boards, which, in turn, do not have to be stocked or stored. Using Dialogic HMP Software provides powerful media processing, via software license, saving significant time and resources.

According to Laura Kennedy, Director of Marketing at Inventive Labs, “we have used Dialogic® technology for over a decade, always taking advantage of Dialogic’s latest innovations, including software-based media processing. When deploying voice applications using Voice Elements and Dialogic® software, our customers benefit from the robustness of the technology and cost savings."

Results

Once the PAETEC development team began using Voice Elements, the automated outage notification project was completed and deployed in only three weeks. With the new solution in place, PAETEC reassigned two customer service technicians from repetitive outage-related calls to more challenging and rewarding direct customer support.

"It was a huge gain for us to be able to repurpose those heads and have them actually solving problems instead of making repetitive phone calls and saying the same thing to different customers," says PAETEC’s McLean. "Using Voice Elements and Dialogic HMP Software was a really nice way to automate the service outage notification service, providing much better updates to the end user than we have been able to provide in the past."
In fact, the automated outage notification project was so successful that PAETEC created a similar notification system for outages and other issues affecting individual customers. Fully integrated with the PAETEC trouble-ticketing system, this “one-off” notification application automatically creates a message text and calls customers with text-to-speech technology. PAETEC expects this new notification system to further increase customer satisfaction and save its service technicians significant time.

**More Ideas for Customer Care Improvements**

Having seen the great value of using proactive customer contact technology in the two service outage projects created with Voice Elements and Dialogic HMP Software, PAETEC employees are eagerly requesting more business automation projects to save time and resources, including:

- **A notification system for maintenance bulletins** – PAETEC plans to use proactive customer contact technology in a new maintenance notification system that will send maintenance bulletins and reminders to customers. The maintenance notification system will use Dialogic HMP Software call analysis technology in the same way as the outage notification system — to determine whether a call is answered by a person or an answering machine — and change the message accordingly.

- **Automated TDM communication system testing** – In order to test TDM communication systems now, a PAETEC service technician has to put a customer on hold and create a new outbound call on the same phone line. By incorporating proactive customer contact technology into the testing process, technicians could initiate outbound calls by entering the phone numbers for affected lines on their computers. Service technicians could then test a TDM phone line while speaking to the customer, saving time and improving customer satisfaction.

- **A robust front end for new projects** – PAETEC wants to create a robust front end that offers proactive customer contact capabilities to any new project, regardless of the provisioning system and without requiring knowledge about specific phone systems. PAETEC plans to incorporate call progress analysis, reporting, and advanced queuing features into this new system.

**About PAETEC**

PAETEC, a Fortune 1000 company, personalizes business communications for medium and large businesses, enterprise organizations, and institutions across the United States. It offers a comprehensive suite of IP, voice, data, and internet services, as well as enterprise communications management software, network security solutions, CPE, and managed services.

For more information, visit [www.paetec.com](http://www.paetec.com).

**About Inventive Labs**

Inventive Labs is a leading provider of telephony application software, tools, and services. The company's products, including Voice Elements, dramatically reduce the time, cost, and complexity of creating voice solutions, and allow enterprises and service providers to rapidly develop and deploy voice solutions, significantly reduce operating costs, and quickly respond to new revenue opportunities.

For more information, visit [www.voiceelements.com](http://www.voiceelements.com).

**About Dialogic Corporation**

Dialogic Corporation delivers cutting-edge technology that inspires its customers, which include solution providers and application developers, to create high-value multimedia solutions. A pioneer in enabling interactive mobile video, Dialogic provides voice, fax, video, and video-analytics technology for use in the cloud, in social networking applications, on premise, and in service provider networks.

For more Information, visit [www.dialogic.com](http://www.dialogic.com).