CASE STUDY

Transit authorities across the USA get mobile with Avail Technologies – thanks to Telerik

Avail Technologies wanted to create a modern platform for their customers – transit authorities – to deliver real-time transit information to riders. Falafel Software's solution leveraged Kendo UI by Telerik to build a rich HTML5 web application.

OVERVIEW

COUNTRY

US

SECTOR

Transportation

TELERIK PARTNER PROFILE

California-based Falafel Software is a leading Telerik partner, delivering software development, training and consulting services. Specializing in web, application and UI design, Falafel is a respected member of the Telerik community.

CUSTOMER PROFILE

Avail Technologies develops fleet management solutions for public transit operators, covering everything from scheduling to fare collection and passenger information systems.
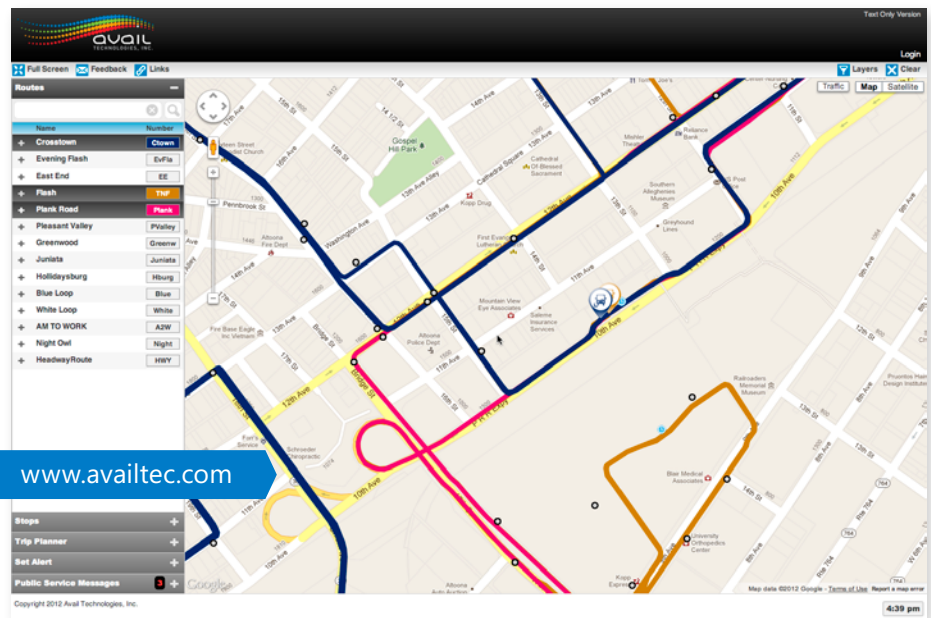
BUSINESS SITUATION

With consumers becoming accustomed to an ever-more sophisticated information experience, Avail Technologies required a modern, responsive web platform to deliver up-to-the-minute information to bus riders.

SOLUTION

Falafel Software used Telerik Kendo UI to deliver a fast and responsive HTML5 platform, packed with rich geographical and data visualizations.
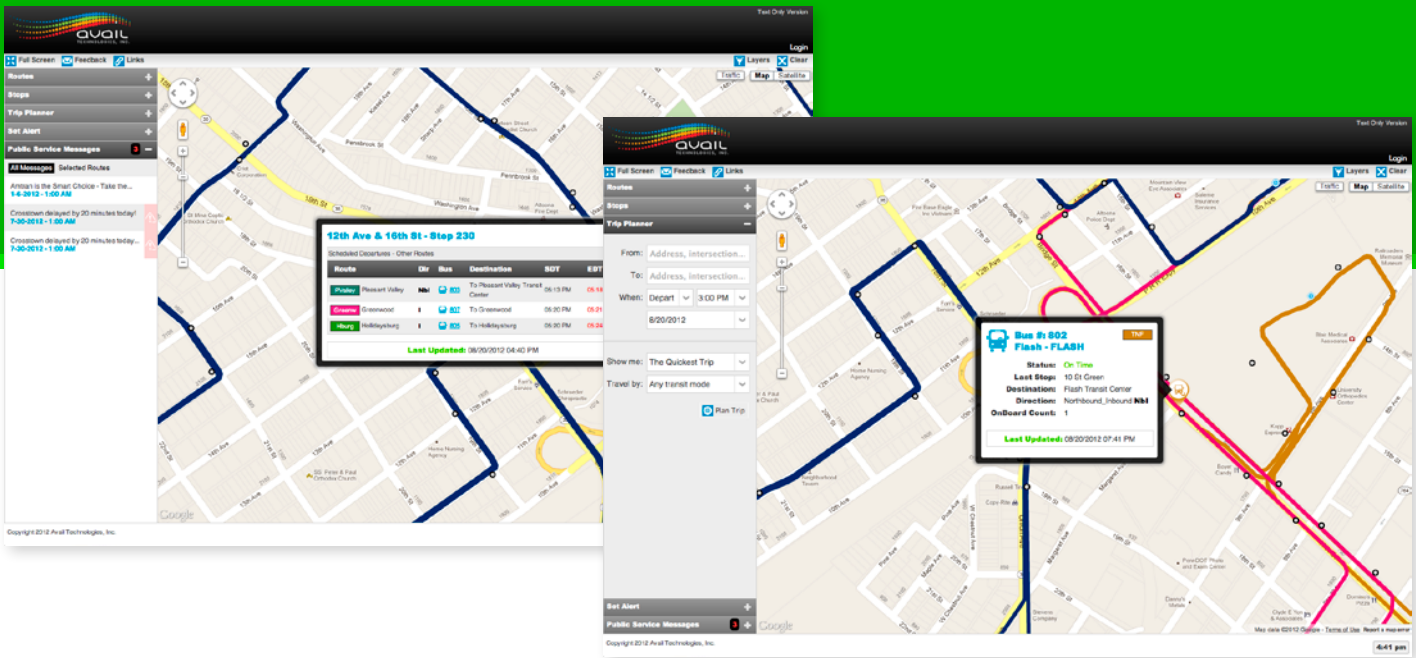
BENEFITS

• Live transit information available on any device and any browser

• Plugin-free rich user experience

www.availtec.com

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>
> Mike Dugan,
> Director of Marketing at Falafel

BACKGROUND

Avail Technologies creates management solutions for public transit authorities across the USA. Focusing on bus operators with small to medium sized fleets, the company delivers systems that manage all aspects of fleet operation, from scheduling to dispatch and vehicle tracking. Every day the company's systems help manage 400,000 passenger journeys in more than 30 cities from Pennsylvania to California.

Every transit authority wants to retain riders and attract new ones. This can be challenging this can be challenging, especially when the authority serves a large geographic area. Perceived service reliability is important for all riders, but it becomes critical where services are infrequent or routes are long. Providing convenient and up-to-date route information in an easily accessible manner is a key weapon for transit authorities in the competitive battle for rider retention.

Avail Technologies understands this. Their InfoPoint system delivers real-time route information to riders online. "We realized it was important
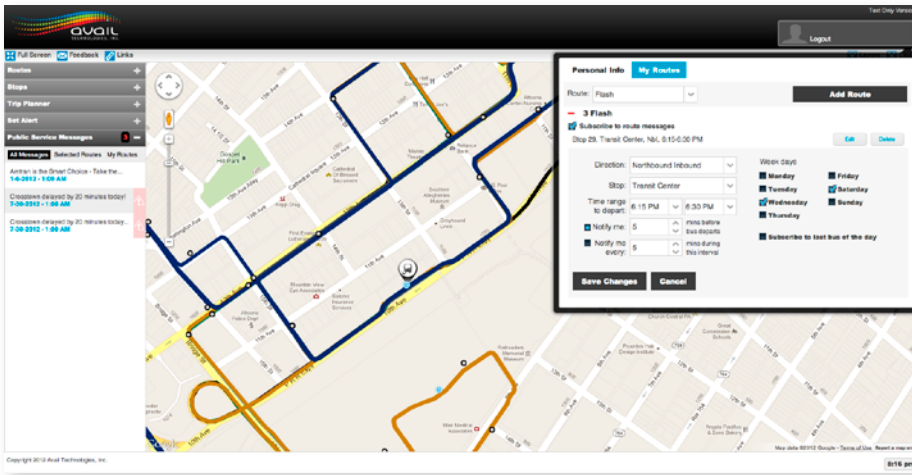
for passengers to have the same information that the fleet managers have," says Alice Wilson, Senior Product Engineer at Avail Technologies. "Not only does it keep passengers happy, but having a more sophisticated public face makes the transit agency attractive to a more sophisticated user, giving it a wider demographic appeal."

THE CHALLENGE

Despite the proven success of InfoPoint in enhancing rider experience, Avail Technologies understood that the product - built with ASP.NET Webforms using out of the box controls - was starting to feel dated. With consumers accustomed to an ever-more sophisticated online user experience, by 2011 InfoPoint needed an overhaul.

"The previous version was not mobile capable, and we wanted users to be able to create a personalized experience," says Alice. "We wanted to build-in functionality like alerts and trip planning. The UI also needed a refresh."

HOW KENDO UI HELPS DEVELOPERS MAXIMIZE PRODUCTIVITY, WHILE DELIVERING PRECISE WIDGET BEHAVIOR AND PIXEL PERFECT VISUALS

Kendo UI comes with Telerik's legendary commitment to excellence in developer support. Getting up and running is easy, with a rich collection of resources to help new users.

Kendo UI Dojo is a unique interactive tutorial environment designed to help developers get into Kendo UI quickly, with no downloads needed. This in-browser application provides an introduction to the basics of Kendo UI Web, DataViz and Mobile through guided tutorials and live, executable samples.

Kendo UI's collection of online web tutorials shows how to create sophisticated user interaction in HTML5, ASP.NET, JSP and PHP. Kendo UI's Getting Started area provides step-by-step walkthroughs and sample code for every Kendo UI component. Advanced users can access Kendo UI's comprehensive documentation – including the full API reference library - online, at any time.

And for mission-critical projects, Kendo UI's commercial license is backed by Telerik's renowned Technical Support Channel, providing 24-hour response times with help and advice from the experts.

widgets added clean and responsive visualization of data."

"Developing a web application showing real time information – right down to current bus locations – was only part of the challenge," says Mike. "Countless data feeds have to be aggregated on the fly and translated to a pleasant user experience that works in any browser. This was a big, complex project and we needed to have the right tools to deliver it."

Avail Technologies was confident that the Kendo UI controls would deliver. "We were already familiar with Telerik," says Alice. "We had used Telerik controls before and we liked them. The demo apps are very helpful and the documentation is very good. When we raise support tickets we always get back a timely response. We are very happy with the whole Telerik experience."

THE RESULT

For Avail Technologies, the collaboration with Falafel Software and the use of Kendo UI has enabled the creation of a richer, more attractive product. The new InfoPoint is a much more sophisticated application. Riders can see up-to-the-minute information about their chosen routes. They can create profiles and receive email alerts at preset times to remind them when their bus is due and get updates on delays. The system integrates with Google Transit to automatically calculate the day's best route. All of this is wrapped in an intuitive, modern UI.

The InfoPoint overhaul was estimated to take about six months and was delivered on time. The estimate would have been two to three months longer

Having received a positive market response to a demo version of the new InfoPoint at the APTA Tri-annual Expo, a national convention for transit authorities, Avail Technologies set about developing the new version of the application in earnest.

THE SOLUTION

Avail Technologies selected long-standing Telerik and Microsoft partner Falafel Software to help develop the new version of InfoPoint. "We found Falafel through the Microsoft Partner Network," says Alice. "They were the only people who were prepared to work the way we wanted to work. We didn't want someone to take the whole project on – we wanted someone to guide us, to answer questions and offer suggestions."

Working together, Avail Technologies and Falafel quickly identified HTML5 as the best technology for the project and Telerik Kendo UI as the best toolset.

"It was clear from the beginning, the solution would rely on cutting edge HTML5 technology and heavy client side scripting. So we turned to Kendo UI to do the heavy lifting," says Mike Dugan, Director of Marketing at Falafel. "The Kendo UI framework data sources and dynamic templates simplified the solution, while the Kendo UI

KENDO UI DATAVIZ – AMAZING USER EXPERIENCE AND POLISHED LOOK AND FEEL FOR END USERS

Kendo UI DataViz delivers the kind of rich interactive charting that used to be the preserve of desktop applications. A simple yet powerful API makes it easy to add Donut, Bubble, Pie, Line, Bar, Column, and Scatter charts to apps and websites.

Kendo UI DataViz uses SVG and automatic hardware acceleration (when available) for all animations and rendering, maximizing performance and minimizing the impact on CPU resources.

HTML5 canvas rendering improves the performance of static charts on mobile devices and allows for direct, client-side exporting of graphs to images in the browser.

Sometimes it's easier to program on the server. Kendo UI server wrappers provide server-side programming convenience for the Kendo UI JavaScript UI widgets. Server wrappers automatically generate the necessary HTML and JavaScript to configure, render, and initialize Kendo UI widgets and charts, whatever the server-side technology - ASP.NET MVC, JSP or PHP.

had the team been forced to create and assemble their own JavaScript framework; there also would have been much greater risk of the project being derailed by cross-browser compatibility issues, stress test failures and UI bugs if Kendo UI could not have been leveraged.

The product is now in beta release with selected customers. Falafel Software took on the bulk of the development load, with Avail Technologies bringing their transit industry knowledge to bear by taking the lead on specification and testing.

For Falafel Software, Kendo UI enabled the use of a unified object-oriented approach to deliver a lightning-fast, cross-browser solution based on HTML5 and JavaScript." The system is fast and responsive," says Mike. "The entire experience takes place with no postbacks on a seamless user interface thanks to Kendo UI."

Avail will be responsible for maintaining and extending the product, and Kendo UI is key to this. "We are very comfortable with this approach," says Mike. "The Kendo UI MVVM model assures us that the system will be easily maintainable for the entire life of the product."

THE VERDICT

Kendo UI was an essential ingredient in delivering the project successfully. "The time saved during development was immeasurable," says Mike. "The project would have been hard to complete without the Kendo UI controls. It paid to use battle tested components and proven techniques."

"Kendo UI enabled us to develop rapidly, using a progressive approach," says Basem Emara, Senior Software Engineer at Falafel. "The Kendo UI API is a pleasure to work with."

The Avail Technologies team agrees. "When we went into this project, we wanted to partner with a company we could have a long-term relationship with," says Alice. "We found the perfect partners in Falafel Software and Telerik."

FIND OUT MORE

Go to www.telerik.com/kendo-ui
Call us +1-888-365-2779
Email sales@telerik.com

ABOUT AVAIL TECHNOLOGIES

Avail Technologies is recognized as the industry's leading provider of ITS technology solutions for small to medium sized transit operators throughout the United States. Avail Technologies offers customers a focused market approach, "Best-of-Breed" products, proven engineering processes and the highest degree of integrity possible.
www.availtec.com

ABOUT FALAFEL SOFTWARE

Falafel Software, an eight-time Microsoft Gold Certified partner, has been providing custom software development, consultation and training services worldwide since 2003. Having standardized on Telerik UI components and developer productivity tools, Falafel has built a world-class consulting and training practice around Telerik's award-wining solutions.
www.falafel.com

ABOUT KENDO UI

Kendo UI is a complete solution for JavaScript and HTML5 developers that provides web and mobile developers with all the necessary components for building HTML5 and JavaScript mobile apps and sites. Based on jQuery, Kendo UI delivers a rich UI for the web, HTML5-powered data visualizations, and tools for building native mobile apps with HTML5. This leading-edge framework delivers everything in a unified, compact package, backed by industry-leading professional support.

ABOUT TELERIK

Telerik empowers over 1,000,000 developers to create compelling app experiences across any screen. Our end-to-end platform uniquely combines industry-leading UI tools with cloud services to simplify the entire app development lifecycle. Telerik tools and services can be adopted individually or as a platform and seamlessly integrated with other popular developer solutions. More than 130,000 customers from 40,000 organizations in 94 countries depend on Telerik products, including more than 450 of the Fortune 500, academic institutions, governments, and non-profits. For additional information about Telerik, please visit telerik.com or follow @telerik on Twitter.