VT Bus Tracker Initial Release Announcement

The VT Bus Tracker team is delighted to announce the initial release of our application. Funded by the VT Student Government Association (SGA), our team has produced a complete suite of applications available both on major smart phones as well as through text messaging (SMS). These applications intuitively display live transit data furnished by our backend information system hosted as a cloud computing application. The hosting is provided by Google App Engine—Google’s latest open platform for delivering highly-scalable, mission-critical, and cost-effective distributed computing solutions.

As a specific example of using VT Bus Tracker, a user equipped with any mobile phone can obtain a list of currently running routes and receive an up-to-date snapshot of any specific route. This snapshot includes estimated arrival times for stops of interest and real time passenger counts for the buses currently running on a selected route. This information’s availability at the fingertips of Blacksburg Transit passengers revolutionizes the way they use public transportation. VT Bus Tracker removes the uncertainty from planning personal travel itineraries, which is expected to dramatically improve the individual passenger experience. In fact, as an information asset that enables individual passengers to reconcile their schedules with that of Blacksburg Transit, VT Bus Tracker is expected to have a positive effect on the overall ridership.

VT Bus Tracker is also a remarkable instance of educational innovation taking place at Virginia Tech. The idea, concept, and prototype for the application originated from a capstone Software Engineering course led by Dr. Eli Tilevich, who continues to serve as the faculty advisor for the project. After the course proved the project’s potential, individual Computer Science students contributed their time, efforts, and passion to explore how the initial prototype can be perfected into a real-world information system. During the exploration period, these efforts were duly recognized by the larger community. The Bus Tracker team received top prizes in both the faculty choice and people’s choice categories at the annual undergraduate research competition.

Following these awards, the SGA led by Brandon Carroll shared in our recognition of the potential of Bus Tracker to positively impact all the passengers of Blacksburg Transit and promote the use of alternative transportation. This, in turn, would improve students’ quality of life. Therefore, the SGA voted to fund the project. It turned out that keeping the development in house provided a cost-effective solution. Specifically, the needed funding turned out to be about $1 per enrolled student. These generous funds allowed us to engage in a rigorous Software Engineering endeavor that led to today’s release.

In summary, VT continues to be a place where exciting education innovation continues to invent the future. Our talented and dedicated CS faculty and students are engaged in projects with game changing implications in the real world, a high-energy process that continues to achieve its ambitious long term goals.

For further up-to-date information and for free access to VT Bus Tracker, please visit the project’s website at: www.bustracker.org, which also contains contact information.

The VT Bus Tracker team:

- Dr. Eli Tilevich—faculty advisor
- Travis Webb—lead software engineer
- Michael Dillon—software engineer
- Alexander Obenauer—software engineer