

# AETHON INTERVIEW: THE QUEST FOR THE AUTOMATED HOSPITAL

## How the Aethon TUG platform moves medicine

*by Mark Ingebretsen, Editor, Robotics Trends*

While industrial, surgical, and military robotics have gained acceptance with practical applications that save costs or lives, businesses and other organizations remain less clear about the value proposition surrounding another category of robots, namely autonomous mobile devices. However, mobile platforms can deliver safe, reliable, and cost effective solutions. They've done so because the companies developing them have created a "whole product solution" that builds upon the platform itself. Moreover, in their marketing efforts, the companies have effectively communicated and addressed the problems their devices are intended to solve.

One of the companies that have been most successful at implementing a whole product solution strategy is Aethon, a provider of innovative robotic hospital delivery and tracking solutions, headed up by President and CEO Aldo Zini.

An early investor in Aethon, whose contributions to technology driven companies over the years have resulted in acquisitions worth more than a quarter of a billion dollars, Mr. Zini spearheaded a strategy in which Aethon developers spent as much time building all the ancillary technologies, product extensions, and interfaces to their existing systems as they did on developing the core mobile robots themselves. Likewise, the company invested heavily in subject matter expertise concerning the various hospital applications their technology is targeted to improve.

Case in point: a specialized version of Aethon's TUG mobile platform that's playfully designed to resemble a child's train locomotive. With its debut in Children's Hospital Boston, the TUG train quickly proved that it not only saved costs and improved service, but became an entertaining way to serve meals to the young patients.

Mr. Zini will deliver a keynote address focused on his company's whole product solution strategy at Robotics Trends' RoboBusiness Leadership Summit in Boston, Nov. 2-3. In this interview, he provides details on the TUG platform that has led to Aethon's success.

**RT:** Can you describe how your collaboration with Children's Hospital Boston came about?

**Zini:** *Children's Hospital Boston heard about our technology and thought it would save costs, improve service, and have a positive influence on their patients. We are pleased with the outcome of our partnership with this hospital, and are now talking to other children's hospitals around the country to do the same thing.*

**RT:** What are the typical cost savings that hospitals realize by incorporating TUG?

**Zini:** *Total net savings, or ROIs, are in the 15- to 40-percent range.*

**RT:** How do hospitals construct the map that enables TUG to navigate a building? Can the devices interface with elevators in order to move from floor to floor?

**Zini:** *Maps are developed with laser scanners and software and can typically be done in a few hours. Our TUG robots interface with elevators through our patented, proprietary software developed by Aethon.*

**RT:** What additional features will you incorporate into TUG in the future?

**Zini:** *Tracking capabilities are being incorporated into our platform using passive RFID technology so that items being delivered can be tracked, monitored, and electronically documented. This helps hospitals comply with chain-of-custody regulations for controlled substances and other high-value items.*

**RT:** Does TUG incorporate any AI functionality at present? If so, what kind?

**Zini:** *Yes; navigational AI for better and smarter navigation.*

**RT:** What area of hospital administration is typically involved in overseeing TUG?

**Zini:** *Various levels, but usually the VP of clinical and support operations; clinical (i.e. pharmacy, nursing, Laboratory) and non-clinical (i.e. dietary, EVS) departments.*

**RT:** Doctors have enthusiastically embraced iPads. Any plans to incorporate them into the TUG platform?

**Zini:** *Yes, as well as iPhones and iPods.*

**RT:** To what extent are safety concerns over people transporting biohazardous materials (blood samples, used syringes) a factor in hospitals choosing to adopt TUG?

**Zini:** *The concerns are with people performing these tasks. It is much safer to transport these materials in secured and monitored carts driven by our robots.*

**RT:** Do you have any plans to expand TUG's enabling technologies into other industries, e.g. warehouses, floor cleaning, etc.?

**Zini:** *We are always looking for ways to expand our technologies' use, so yes.*

**RT:** As a successful product, what can the robotics industry learn from TUG?

**Zini:** *You really need to develop a whole product solution – hardware, software, UI, interfaces, and process redesign – with a consideration for what problem you are really trying to solve. Bringing in the appropriate subject matter experts to help design your platform and the interaction with users is also very important.*