

Case Study

Increasing the Productivity and Range of Security Personnel

MEDICAL CENTER SECURITY

Carolinas HealthCare System, Charlotte, North Carolina

While much of the growth in the use of Segway® Personal Transporters (PTs) by police and security agencies is attributable to police initiatives in cities such as Chicago, Miami, Washington D.C. and Albuquerque, medical center campuses across the country are also integrating the Segway PT into their security operations. Carolinas HealthCare System of Charlotte, N.C., recently deployed Segway PTs at four of its campuses, joining long-time customers such as Johns Hopkins, Loma Linda Medical Center and Baltimore's Sinai Hospital.

Although Segway PT use varies slightly from one medical center to the next, most healthcare campuses present several unique security requirements that make Segway PTs a good fit:

- Officers must patrol open pedestrian environments that are closed to vehicle traffic.
- Security officers must also respond quickly to emergencies both indoors and out.
- Healthcare campuses are searching for sound alternatives to gas-powered vehicles and looking for ways to reduce their carbon footprint.

According to Bryan Warren, manager of investigations for Carolinas HealthCare System corporate security, it makes sense to evaluate Segway PTs as alternatives to other patrol applications. "We first saw the Segway PT in 2006 at the Southeastern Safety and Security Conference in Myrtle Beach," says Warren. "At the time, we were using a combination of foot patrols, mountain bikes and three-wheeled electric-powered carts to patrol our larger campuses, and we were having maintenance issues with the carts. When we saw the Segway PT we liked its portability and the increased visibility it gave the officers. Its price was comparable to the three-wheeled carts, but the advanced technology in the Segway PT appealed to us."

In September 2006, Warren arranged for an on-site demo of the Segway PT at what he considered to be his most challenging environment—the Carolinas Medical Center campus with facilities totaling more than 2 million square feet. In addition to the main hospital, the Center includes several medical office buildings, a nursing college and four large parking structures with more than 6,500 parking spaces. "We brought a unit

out to one of our new parking decks, which had a very steep incline between levels and some narrow passages on the decks," says Warren. "We found that the officers on the Segway PT moved quickly up the ramp inclines with no loss of speed, and were also able to maneuver down the passages and into the elevator to move from level to level. It performed very well."

Based on this performance, Warren then arranged for an in-depth one-week trial using a cross-section of his patrol officers. "We had several of our officers come in on the day the Segway PT was delivered and go through the training course. We then had them use the Segway PT on every shift and said to them 'we want you to use it in parking decks, lots and inside the facilities after hours, and give us your feedback on how it compares to foot patrol, bike patrol and the three-wheeled electric carts that we had been using previously.'"

According to Warren, the reports at the end of the week were very positive. He found that his patrol officers were able to complete their patrol routes in approximately half the time that they did on foot, and they quickly learned how to operate it. "They reported that it was very maneuverable and that it could be taken into areas that the electrically powered bikes could not go," says Warren. "The officers also found that the Segway PTs operated very quietly, allowing them to come up to a situation very quickly and sometimes without alerting people to their presence, which at times they may want. They used it to travel along sidewalks, and said that it was very intuitive. We also found that the officers were more alert and obviously less fatigued



Executive Summary

CUSTOMER

Carolinas HealthCare System Charlotte, North Carolina

MARKET SECTOR

Medical Center Security

THE CHALLENGE

- Increase the productivity of security personnel who patrol the medical center campuses on foot, bikes and by using three-wheeled carts.
- Respond quickly and without fatigue to emergency calls across the campus.

THE SOLUTION

- Purchase five Segway PT i2 Police packages and deploy them at four different campuses

BENEFITS TO THE CUSTOMER

- Officers now complete their patrol times in half the time it took on foot.
- Battery-powered Segway PTs allow the officers to limit the use of gasoline-powered golf carts, which were noisy and could contribute to the build-up of CO₂ in confined spaces.
- Officers are able to recharge the Segway i2s at any conventional electrical outlet; this is a big improvement over the three-wheeled carts that required battery removal.
- Segway i2s make almost no sound, enabling officers to move quietly when they need to.
- Segway PTs are able to easily move up and down the parking structure ramps.
- Officers are much more approachable and find it easier to engage the public as they make their rounds.



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when they had to respond quickly to a situation versus running to it or pedaling a bike. This increased their ability to handle a potentially physical confrontation once they arrived on the scene. If something does occur and an officer needs back-up it can be a considerable time getting from one area to another on foot. The Segway PTs help tremendously in that respect."

Apart from its performance as a patrol tool, the Segway PT also delivered environmental benefits that Carolinas HealthCare was looking for. "The Segway PT has obvious 'green appeal', which is important to us," says Warren. "We had also looked at gasoline-powered vehicles such as golf carts, and there were several issues we encountered such as the noise, pollution and the build up of CO₂ in confined areas. The Segway PT just seemed to be a lot better solution all the way around. It was also much easier to re-charge than our previous experiments with battery-operated vehicles that required you to physically remove the battery. With the Segway PT we could simply plug it into any 110 outlet and charge it at any time."

Security Officers More Approachable at Carolina HealthCare

After Carolinas HealthCare System completed its one-week trial and evaluation, the security department purchased four Segway PTs for immediate use. Two of the units went to the largest campus—Carolinas Medical Center—and one was deployed at each of two smaller campuses—Mercy and University. In the spring of 2007, Warren purchased a fifth unit, which will be used at the Carolinas Medical Center in Pineville, N.C. All five units are i2 Police models that include a full complement of police accessories.



Having had a few months to fully gauge the effectiveness of the units, Warren is very positive about the Segway PTs fit in the healthcare campus environment. "We have gotten quite a few comments from staff members and they were very impressed with it," says Warren. "It really makes the officers a lot more approachable and at the same time puts us on the cutting edge of security technology. Initially the officers were a little reticent about using the Segway PTs, but once they realized just how intuitive it was to ride they warmed up to it. They realized how much more productive that they could be and now we can't get them off of them. There's a little competitiveness about who gets to use the Segway PTs each day."

Carolinas Medical Center recently started using the Segway PTs to patrol the interior of the medical office building. The department uses an electronically monitored patrol system that the officers can easily access right off the Segway PT, and they do not even have to dismount. The officers can pull up to their station, check in and continue on their patrol. This may make it possible for Warren's security officers to complete more patrol rounds on each shift without adding more personnel.■

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Corporate Security

