Robotic Parking Systems Simplifies the Traffic Jams Associated with City Parking

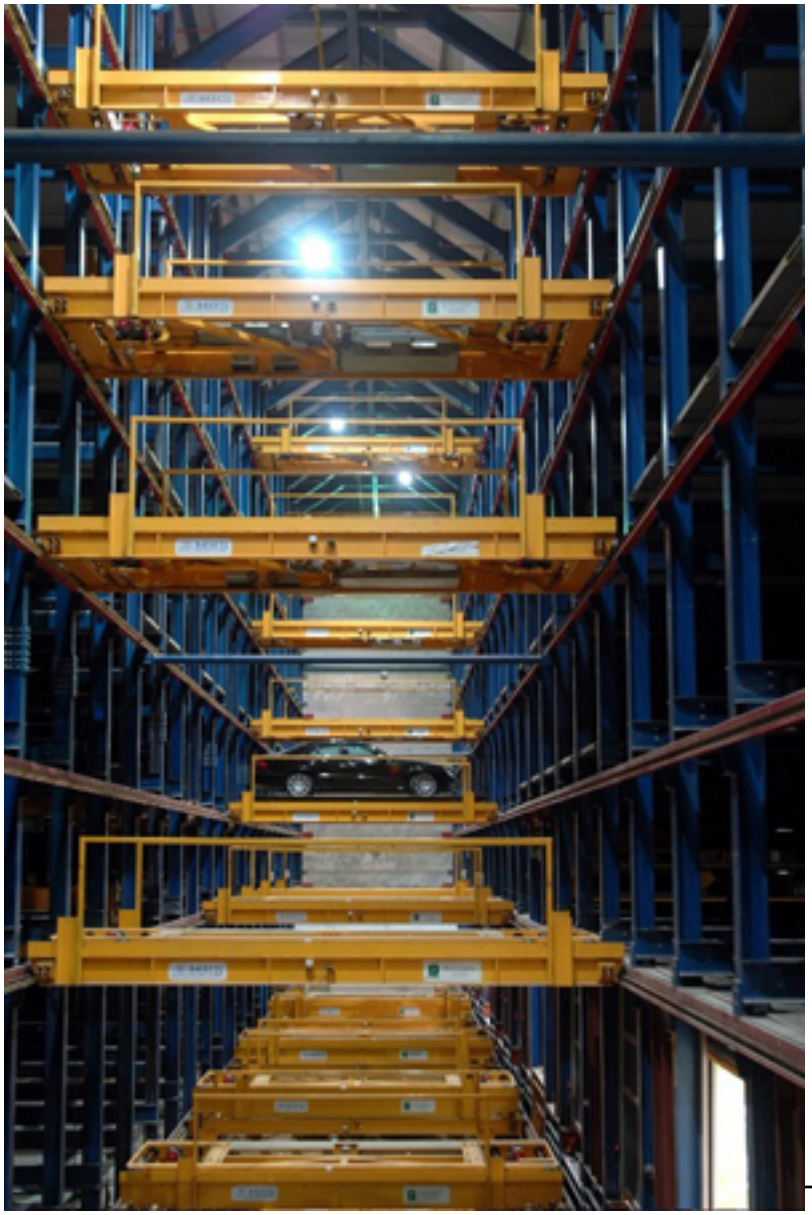
Mary Lou DeWynGaert, Chief Administrative Officer, Robotic Parking Systems

Finding a parking spot in the city is a hassle, plain and simple. That's why my company, Robotic Parking Systems [1], set out to change the way the world parks. Our company creates automated and high-speed parking systems. Compared to a typical garage structure, our system parks twice as many cars in the same physical space. On top of that, we've created a 'valet without the valet' service that decreases traffic entering and exiting the garage, eliminates accidents, optimizes land use, cuts auto emissions and promotes 'green' urban development. Who says there's no innovation in parking?

Honestly, finding a parking space can be downright annoying. Now instead of circling different parking levels and hoping the find a free spot, drivers just have to enter a street-level terminal and let the garage handle the rest. Sophisticated software controls the platforms, lifts, motors, sensors, and other mechanical gear that transport cars to an open spaces in a multi-story steel shelving system. When you're ready to leave, instead of scouring the garage, trying to remember where you left your car, the system locates your vehicle and returns it to a ground level exit terminal – facing in the correct direction. Retrieving a car takes just one to three minutes and each entry and exit gate can handle 30 cars per hour on average.

How does it work?

The automation software that runs the garage is powered by GE's Cimplicity intelligent platform [2], a client/server based visualization and control solution with detailed human machine interface [3] (HMI) graphics screens. Our HMI is one of the most sophisticated diagnostics systems in the industry. Its patented high-level warning systems provide alerts well in advance of any failures to help maintain a high level of uptime. The HMI records the rotation of every wheel, bearing, gearbox and motor. All moving parts are tracked and recorded in real time, and any needed maintenance is immediately reported online to the service department.



The CIMPLICITY software is hosted on Stratus Technologies ftServer systems [4], which provides better than 99.999 percent uptime guaranteed in 24/7 operation. Stratus servers are designed to prevent failures from occurring, rather than recover from failure after the fact. There is no system failover or data loss. Stratus ftServer systems are equipped with an automated uptime layer that constantly monitors more than 500 server components and sensors, and manages system resources to preemptively protect against downtime and data loss, also requiring no human intervention.

Because we believe in the motto 'it's better to be safe than sorry,' all major

components have at least one backup system and, in some cases, as many as four. Every machine has built-in redundant components. In addition, at least two of each type of machine is installed in the automated parking facility. Both machines can perform the same tasks at the same time. Therefore, if one machine needs maintenance or repair, there is always a backup machine to keep the cars moving into and out of the garage.

What does this all mean?
Simply put, the design of the system makes it impossible for the system to go down – only the components can fail, and even then, other redundant components will take over immediately. This means there will always be a smooth transition from the parking space to the exit. That's a lot of happy drivers.

Where are we?
At present, our parking garages can be found in 6 locations around the world, including Clearwater, FL. and Dubai, U.A.E..

Mary Lou DeWynGaert, Chief Administrative Officer
Ms. DeWynGaert earned a BS in Education, Math and Science. After a brief period of teaching, she became involved in the computer software industry developing and programming accounting software packages.

Ms. DeWynGaert was a shareholder and held numerous positions in RealWorld Corporation, one of the original developers of widely used accounting software packages for small- to medium-sized businesses. She held such positions as Software Development Director, Customer Service and Technical Support Director, IT Director as well as Service Product Officer / Deputy to the President and CEO. During her tenure as VP Marketing and later VP Sales and Marketing, company revenue grew from $6 million to $18 million.

Ms. DeWynGaert has also served as VP Development for Competence Software, a developer of financial and investment training software as well as Marketing Director and Webmaster for Software Shelf, a manufacturer and distributor for corporate enterprise software.

Ms. DeWynGaert has been with Robotic Parking Systems, Inc. since 2005 where she is responsible for corporate and legal affairs, human resources, contract management, marketing and accounting. Ms. DeWynGaert was appointed as Assistant Secretary / Treasurer of the company in 2008.

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