

“WOW!” - A SPOT-ON SOLUTION DRIVES REVENUE GROWTH FOR PARKING COMPANY



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The Customer



This parking facility management (PFM) company is a leading provider of professional parking management services throughout the United States.

The Challenge

Parking management organizations generate significant revenue if they're able to offer on-demand parking services to daily commuters and occasional parkers. But doing so requires continually updated parking data that helps companies connect mobile applications and reservation systems to the actual number of parking spots available in a given location.

For our customer, a parking facility management (PFM) company, "marooned" parking data posed a significant challenge. It had the capability to collect real-time data from monitoring devices, but the data was siloed at satellite server locations until scheduled batch uploads moved the information to central systems. PFM's inability to access this information in real time meant they weren't capable of responding dynamically to changing conditions – such as weather patterns or local events – to price parking spaces accordingly.

Kris Brown is Global Head of Data Solutions for Prolifics. "Any kind of retail situation where you would want dynamic pricing is really where this challenge comes into play," said Brown. "In the context of parking, let's say the night that U2 is in town, you could raise the parking to \$40. But on Monday morning, when everybody's going back to work, you'd know enough to put it back down to \$5. If your parking is always \$5, and you're not capable of charging more for key events, it's revenue lost. That's the 'wow' factor of dynamic pricing."

How Prolifics met PFM's challenge

With data siloed across multiple locations and only updated on a preconfigured schedule, PFM could not participate in real-time pricing initiatives. This was the first priority for the Prolifics teams: creating a way to centralize key data without the need to wait on specific update scheduling.

To address this issue, Prolifics started with the implementation of real-time data feeds that improved both data quality and governance. In practice, this provided both streamlined access to data on-demand and helped ensure that uploaded data was stored securely to protect critical information.

Next, our teams deployed a hybrid cloud solution that allowed the company to store real-time data in the public cloud without compromising security or control.

With this in place, Brown explained how the data can now be used for pricing optimization. “We created analytical models on the data – and the models give opportunities to understand what events allow you to have higher demand and where you’ll get higher demand no matter what,” said Brown. “And then what you can do, as you start to adjust your pricing based on those events, is see how your capacity reacts to the changes. If my capacity is at a hundred percent, do I up the charge the next time around? We start to do trend analysis to see where the optimizations are.”

Brown continued, “Whenever you do any kind of AI/ML (artificial intelligence/machine learning) modeling, you might create 300 models and see which ones are really of value. So, part of what you have to do when you go through that process is finding things like the highest price point. The AI/ML tools are automating this, and you’re getting better and better at modeling – because at the end of the day, you do need the human factor to go in to validate which models actually work. And then once you find models that work, you can operationalize it. And then what we look for is a thing on the back end called ‘drift analysis,’ where you can see over time if your models are becoming less accurate.”



A large part of the “wow” factor for this dynamic pricing process is the speed of the AI/ML automated tools.

“What the tools do is take something that someone might need weeks and months to do manually and bring it down to hours. It’s fast,” said Brown. “It then highlights the things that you may want to see. You then obviously need to have somebody with business intelligence look at the results and figure out which models really work. What you’re really doing is taking the analysis piece of this – running the models and providing output – and massively automating it. Then you act on the actual recommendations piece. You’re making your organization tremendously more productive.”

Prolifics also built a new front-end interface for the company. It included application programming interfaces (APIs) to connect multiple services across disparate data channels and facilitate data integration with popular web and mobile reservation apps. In the case of our client, PFM, this was an additional – and very important – “wow” factor as they owned multiple local parking properties in their operational areas. The models can consider the other properties, while the integration with apps can direct customers to the other PFM-owned facilities.

“So, you might only have a quarter of the parking spots in the town, but that’s a statistically significant enough of a sample to model,” explained Brown. “You know, more or less, what you’re seeing is what everybody else is going to see. So, in relation to price optimization is directing people towards your ‘empty inventory’ – your other facilities. It’s a combination of price and consumption guidance to try and maximize use of parking spaces.”

Brown continued, “Say the PFM parking garage on Elm Street is full, but you know that the PFM Oak Street garage two blocks over has a hundred open spaces. Do you want a driver to go and randomly hunt for some other place to park and hope that he happens to pick your alternate property? Or, if you direct him to your property thru the integrated app, you’re making sure you get the revenue. I’m sold out of A, but I can entice you to go buy B.”

Finally, our teams created a new administrative user experience to improve facility, partner, and price management across the organization. In addition, Prolifics was responsible for development, user interface building, and testing over a nine-month period to ensure consistent performance and streamlined operation.



The Results

more “wow” factor

By partnering with Prolifics, PFM was able to combine real-time data about current parking capacity and combine it with relevant information about local traffic and events. By leveraging robust APIs to connect tools such as Google Maps to parking databases and mobile reservation apps, it was possible to deliver end-to-end parking information and pricing that responded dynamically to user demand – instead of being updated after the fact.

What’s more, data available in real time helped boost consumer confidence that if they reserved a specific spot using a mobile or web-based application, that spot would be waiting for them when they arrived. It also became possible to allocate specific spots for ride-sharing services, such as Uber or Lyft.

By deploying real-time data feeds, connecting hybrid clouds, and creating API-driven communication among databases, mobile apps, and services such as Google Maps, Prolifics helped PFM effectively use its parking inventory to increase revenue and expand competitive market share.

“Our work with PFM was very cool. And you don’t really have to stretch your mind very much to see where you could apply that to other very relevant things,” said Brown.

To find out how Prolifics can help your organization streamline operations, [connect with one of our experts today.](#)



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