

HOW GAP HELPED CARPARTS.COM BUILD A TECHNICAL TRANSFORMATION ROADMAP TIED TO BUSINESS VALUE

AUTOMOTIVE/RETAIL

CarParts.com is a leader in its industry. But forward-thinking companies don't stand still. With a modernization project on the horizon, the company sought help from GAP to turn a roadmap into a true digital transformation by bringing the business and technology together

While every customer has some level of uniqueness, the challenges at CarParts.com were not unusual. They needed to determine: How do they transition to more modern technologies, while keeping the business running without interruption?

And that's the hard part — as it's much more difficult to update existing things and bring them together, rather than building new applications from scratch.

DID YOU KNOW?

There are more than 30,000 parts to your vehicle. And CarParts.com has over 850,000 auto parts at your fingertips.

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Even if you are a leader in your industry, it can be fatal to rest on your laurels. It may not hurt you today, but it could cause incurable problems down the line. The moral of horror stories like Kodak and Blockbuster is simple: every day you stand still, your competition inches closer to you. But the question is: how do you build better practices from an already strongly-entrenched position?

This was the scenario facing CarParts.com, a leading retailer in the automotive industry. The company was founded in 1995 and, since 1999, has had an eCommerce presence, making it a genuine early adopter in the space.

Recent performance has been very strong. Q2 2023 saw the highest quarterly sales in the company's history at \$177 million. It was the 14th consecutive quarter of year-on-year growth. But there is always a bigger picture to look toward.

While CarParts.com is touching almost \$700 million in yearly revenues, CTO Kals Subramanian calculates the total addressable market for the company, taking account the wider online and retail auto parts industries, is nearer \$300 billion.

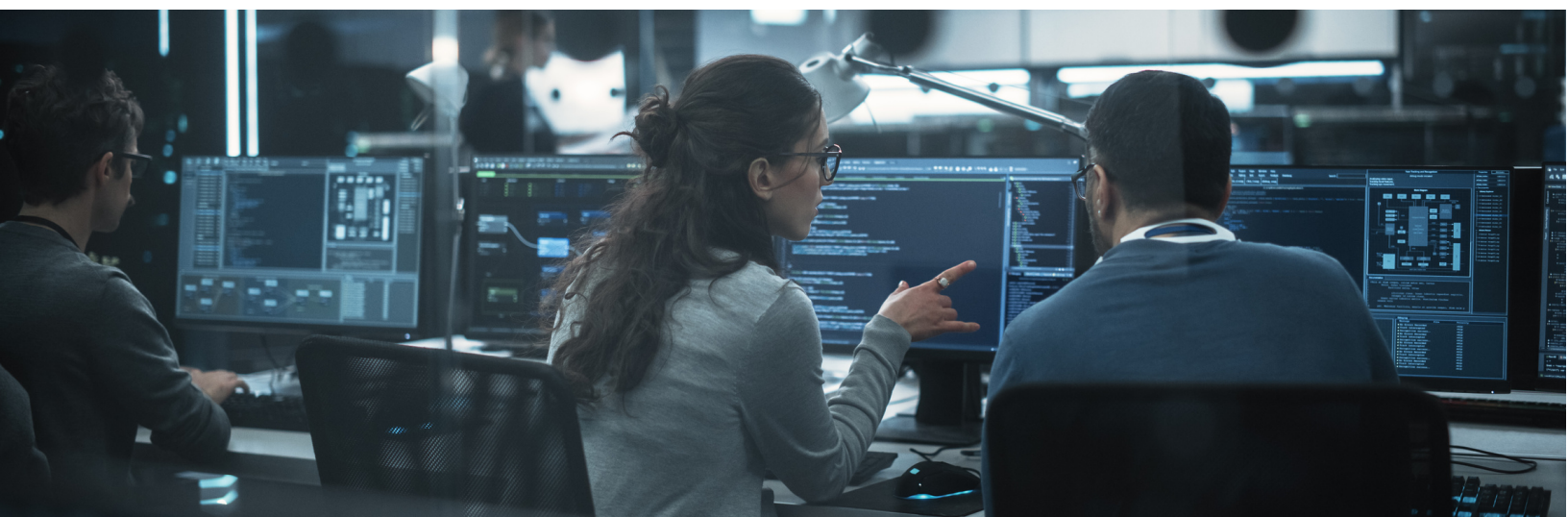
Moving Forward with Modernization

CarParts.com already had a strong, streamlined, factory-to-consumer online shopping experience. So given their strength in this area, it only made sense to explore the next steps from a technology modernization angle.

“When we think about how we want to grow the business, being a digital-native, eCommerce-only company, we came to the conclusion that technology is our best way to grow,” Subramanian said. “Because we do not have brick and mortar like others do, technology becomes our super power — all the way from taking orders on online processing, through a backend system, order management, fulfilling through our supply chain software, and bringing it all together.”

The goal for Subramanian was therefore to modernize operations at CarParts.com to position themselves for significant growth in the future. Yet for this large future-proofing project, the company realized during an internal review process that they needed a second opinion. While Subramanian was able to do lots of good work understanding business opportunities, from lower-hanging fruit to the medium-tier opportunities, the longer-focused lens was a little blurred.

Subramanian’s experience has predominantly been in retail — previous employers include Lowe’s and Target — and he had concerns his new team’s experience was too narrowly focused. What CarParts.com needed was a technology advisory partner who had strong domain expertise on retail, and strong engineering expertise across the stack, be it infrastructure or application development, cloud or data center. And this is where GAP came in.



FOUR ASPECTS TO CARPARTS.COM'S STRATEGIC ROADMAP

GAP was able to assess how each part of the CarParts.com stack could be modernized, and created a technology modernization roadmap and architecture. This not only promoted business value, but also had a phased, longer-term approach.

“What the GAP team did was more strategic,” notes Subramanian. “It’s going to pan out in the next two to three years, because a lot of these capability transformations are multi-year projects.” With regard to application modernization, there were four aspects to the strategy.



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1. GAP recommended a MACH (microservices, API-first, cloud-native and headless) architectural approach for application modernization.
2. There was also a recommendation to develop and utilize 12-factor apps, a methodology for building software as a service (SaaS) that use declarative formats to provide an easier process for developers to scale up and deploy comfortably on modern cloud platforms.
3. Alongside this were recommendations on runtime execution models, which applied best to overall cloud strategy and specific application requirements, and how to build a successful DevSecOps culture, based around the “release early and often” mantra.
4. From a cloud architecture perspective, GAP recommended a unification that reflected a long-standing commitment CarParts.com had with AWS. Going forward, the company would utilize “as a service” (aaS) offerings from AWS, ranging from SQL and NoSQL databases, to the ELK stack (Elasticsearch, Logstash, Kibana), which assists with logging and infrastructure monitoring, unless a strong business case could be made against it.

WHEN IT CAME TO A SPECIFIC MIGRATION PROGRAM, THE STACK WAS ALLOCATED VIA THE FIVE RS:



Rehost



Re-platform



Retarget



Refactor



Retire

The aaS options in AWS were therefore re-platformed, while the eCommerce side was refactored. And the supply chain software, Körber, would be retargeted to a hosted solution.



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GAP's VP Client Advisory Skip Balch worked closely with CarParts.com and understands there is no one-solution that fits all.

“We like to propose different recommended alternatives and then collaborate with the client to decide which one fits them the best,” Balch said. “What might be best for one company might not be the best approach for somebody else.”

Building a phased approach for longer-term goals means some of the fruits of this labor will not blossom for a couple of years. For the initial groundwork however, Subramanian is happy with not only the deliverables, but also being able to better articulate a macro-level vision to the C-suite and enable buy-in.

“What GAP was able to do is trigger the journey,” explains Subramanian. “Before GAP, we were in discussion mode: ‘What do we do?’ ‘How do we do it?’ ‘How should we think about it?’ The GAP conversation made it more real and helped us to start the digital transformation journey. This is just the beginning for CarParts.com. Notes Subramanian, “We were on a tech transformation for the last 16 months. Now we are on a digital transformation that includes business and technology together.”



And for the team at GAP, working with companies like CarParts.com is a source of great satisfaction, as you can see the positive impact for the client.

“There’s nothing more rewarding than working with leaders like Kals — who invite collaboration, and create a fun, productive environment where technology decisions are positioned to positively impact the future of the business,” Balch said. “We look forward to working with them in the future as they continue this digital transformation journey.”

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