

# AUTONOMOUS VEHICLES

## DQE Industry Solution



### THE CHALLENGE

It's no secret that Pittsburgh is home to some of the nation's top universities, known for their world-class, interdisciplinary programs primarily in the areas of robotics and engineering.

As a result, the city is quickly becoming a vibrant hub for those responsible for designing some of the world's most innovative advancements in technology. In fact, Pittsburgh is home to several robotics and technology companies that are all making unprecedented advancements in research and development for maps, vehicle safety, and autonomous driving.

With dynamic and constantly changing environments, these emerging organizations all tend to face a common issue – an increasing need for fast and reliable network bandwidth. Enterprises seeking to leverage Artificial Intelligence (AI) and other applications to transform the automotive sector require large-scale bandwidth connections that can not only meet their data needs now, but also scale easily for their future bandwidth demands. For these emerging organizations, finding a network service provider that can seamlessly adapt with their requirements is crucial to their growth and business development strategies. In addition to seeking top-notch quality of service, autonomous vehicle technology organizations also need a local partner with a vast footprint and stable partnerships in the region. Many growing startups also recognize a need for additional business locations – all to be connected to one another in a very timely manner for immediate network service.

### THE SOLUTION

Companies involved with autonomous vehicle technologies know that DQE has the right solutions to meet their varying needs and their demand for fast and reliable bandwidth. DQE is able to customize a solution for the evolving, varying and growing needs of these companies, ensuring that their network can adapt to them. Because autonomous vehicles gather large amounts of data, DQE's clients can utilize our wavelength services to move high volumes of data quickly between facilities for processing. Other clients make use of DQE's Highly Available Internet Services capitalizing on the benefit of providing redundant equipment, often with physically diverse entrances and a service that utilizes all 5 of DQE's Tier 1 Upstream providers.



## THE SOLUTION (CONT.)

DQE's Cloud Solution is yet another option that proves valuable, as it offers an on-ramp to cloud platforms such as Amazon Web Services (AWS) or Microsoft Azure, which are popular with startups due to the minimal physical hardware and space required to operate.

The challenge, however, is that connectivity to one's cloud service is typically done through the internet or a dedicated connection, which makes it necessary for the organization to decide what blend of physical/cloud infrastructure they are comfortable with. No matter the issue, DQE Communications provides ways for all of that to mesh together seamlessly, taking the burden out of the hands of the client.

One of the most important benefits to customers is that DQE consistently delivers quality data network services to its customers with honesty and integrity. DQE offers a single point of contact through a dedicated, responsive, customer focused team that delivers on its promises and offers reliable, customized solutions for clients and a high delivery standard with strategic pricing.

If a customer needs diverse route considerations, entry into the customer building, unique equipment/space requirements, extending to the customer demarc, delivery deadlines or being flexible to last minute changes, DQE will deliver.



"Whether it be 10Gbps of highly available internet, 400Gbps of site-to-site connectivity, or an onramp to cloud service providers, DQE Communications is ready to provide it on our own footprint, with local knowledge. That's very attractive to our partners in the Autonomous Vehicle sector." Patrick Lazorchak, Director of IP Services.

## RESULTS

**Bandwidth-intensive applications, such as those used in the autonomous vehicle industry, demand high-performance connectivity.**

DQE offers high-bandwidth, low-latency technologies, such as Wavelength Services, transported with a wide range of high availability configuration options that can scale as the business grows. From interconnecting backbones and cloud services, to disaster recovery and data center replication, DQE has the services that fit the needs of these organizations. As network demands increase, DQE responds with offering technologies to increase the bandwidth capacity of fiber to a throughput of 100 Gbps and beyond. We offer a 100% Fiber-Optic Network with superior reliability, security and flexibility. All our services feature scalability, high-bandwidth and low-latency – all backed by robust Service Level Agreements and 24/7/365 Network monitoring.

Organizations in the autonomous vehicle sector share the desire to be prepared for anything. They require the connectivity and bandwidth to be able to react and respond quickly to changes in their environment without delay so that they are not left behind. In short, they need a provider that can stay one step ahead and be prepared for the next request. DQE has invested heavily in our network and is fully equipped to support the local tech boom and rapid industry advancements. Best of all, we have a proven track record of partnering with emerging organizations from their beginnings and growing with them as they push the boundaries of autonomous vehicle technology. Organizations in this industry can feel confident knowing that the experience and service that DQE offers, along with the company's willingness to adapt, will help them to succeed.

**ABOUT DQE COMMUNICATIONS** Headquartered in Pittsburgh, Pennsylvania, DQE Communications is one of the leading providers of high-speed, data networking for businesses and carriers. The company's continually expanding fiber-optic network currently spans thousands of miles and over 1,900 buildings and 114 business parks. DQE Communications' growing list of services include Metro Ethernet, Wavelength, Internet, DDoS Mitigation, Cloud Solution, Dark Fiber, and Colocation. A subsidiary of Duquesne Light Holdings, DQE Communications was established in 1997 to provide businesses with secure, reliable and flexible network services. For more information, visit [www.DQECOM.com](http://www.DQECOM.com) or call 1-866-GO-FIBER.



**DQE COMMUNICATIONS**  
45 S. 23<sup>rd</sup> Street, Pittsburgh, PA 15203

1-866-GO FIBER  
DQE.COM