



Generating real value with artificial intelligence

North American IT solution provider partners with Dell Technologies to deliver industry-leading solutions and services.



Information Technology

North America

Business needs

Converge Technology Solutions uses artificial intelligence systems to power its leading-edge IT solutions and services.

Solutions at a glance

- Dell EMC PowerEdge servers
- Intel® Xeon® Scalable processors and Intel® Optane™ memory
- Server accelerators

Business results

- Solving business problems with the power of AI
- Accelerating digital transformation
- Helping clients save millions of dollars
- Overcoming language barriers with AI

With a custom AI solution, a Converge client grew its revenue from \$800,000 to

\$180 million
per year



By implementing AI vision in a manufacturing line, Converge helped a client save

\$150,000
per month



High tech with a high touch

Converge Technology Solutions Corp. is a North American hybrid IT solution provider focused on delivering industry-leading solutions and services. Converge's regional sales and services organizations deliver advanced analytics, cloud, cybersecurity and managed services offerings to clients across various industries.

The Toronto-based company supports its solutions with talent expertise and digital infrastructure offerings from Dell Technologies and other IT vendors. This multi-faceted approach enables Converge to address the unique business and technology requirements for its clients in the public and private sectors. The company strives to be a trusted partner who brings together world-class solutions and services to help reduce costs, increase efficiency and create competitive advantages.

In a sign of the company's rising stature, CRN ranked Converge within the Top 50 on its 2020 Solution Provider 500 list, which recognizes the top-performing technology integrators, strategic service providers and IT consultants in North America.

Delivering the power of advanced analytics

The Converge portfolio of offerings includes advanced analytics solutions and services that help the firm's clients use data, machine learning techniques and artificial intelligence to solve business problems. These efforts are spearheaded by Jonathan D. Gough, Ph.D., lead data scientist for Converge and head of the company's AI and machine learning division.

"We are consultants with a capital C," Gough says. "We spend a lot of time working with the client trying to understand the problem they're trying to solve, and then building the solution to solve that problem. We could have built an out-of-the-box product and said, Here, buy our product. It will work for you. That's not how we work. We live and breathe the challenges our clients face and the business domain they exist in, and then we build a solution that fits in that niche."

This was the case when Converge worked with a relatively small media-buying company that purchases advertising time from the local affiliates of major networks on behalf of its customers. Unlike the big players in the industry that make national buys from the big media outlets, the Converge client places ads directly on local stations to allow its customers to create national campaigns at a scale and price that meets their budgets.

This hybrid media-buying model comes with some unique challenges. There are 208 different locales where there are network affiliates the company works with. So instead of going to one place to make the buy, the company might have to go to 100 or 150 places and make buying decisions related to tens of thousands of available television spots.

"The challenge we help solve is how to figure out the right way to buy the right ads across an inventory that has more than 40,000 specific spots," Gough says. "To do that, you can make different business rules to ensure you have ads equivalent across the entire country, or 85 percent of the country, across an average that meets all the major networks and is also cost efficient."

A growing enterprise

Converge Technology Solutions Corp. is a parent company to more than a dozen sister companies. Collectively, Converge is made up of a portfolio of established and successful IT solution companies across North America with proven expertise in infrastructure solutions.



To address this challenge, Gough and his team developed an AI-driven platform that makes real-time predictions on who is going to be watching TV, when they are going to be watching and what shows they are going to be watching. Prior to working with Converge, the media-buying company tried to figure all of this out using spreadsheets and manual processes.

For this effort, Gough and his team developed a model that standardizes the names of programs, which are often expressed in different ways by different stations, and considers a wide range of variables on each locality, from rural and urban characteristics to demographics and political leanings. While enabling smarter media buys, this model also streamlines the process gathering data from multiple companies that measure ratings and reporting on the results of campaigns.

Amazing results

Converge's clients have achieved some amazing results with their AI solutions. The company's media-buying client, for example, used its AI platform to grow its business by orders of magnitude.

"When they came to us, they could run two to four campaigns per quarter," Gough says. "They were doing \$800,000 in business a year. Last year, they did over \$180 million in business, all because of the platform we built for them. It does all the work they used to do in spreadsheets by hand, automagically. They used to go through every single line estimating predictions for every line of inventory. And now we can do that in real time at scale."

Even better, the media-buying company achieved that dramatic growth without adding new employees — they continue to operate with a team of just eight people.

"We just added technology to help them do their jobs better, so they could focus on things that really matter," Gough says.

In another AI success, Converge helped a manufacturer slash its costs stemming from defective parts. In this project, Converge developed a solution that uses computer vision to detect faulty materials in the manufacturing process.

"By implementing AI vision at the front of the line, and all along the line, we were able to save them \$150,000 a month," Gough says. "Before implementing this solution, they would have a whole set of faulty parts that would ruin an entire batch of their product, creating scrap metal. And they wouldn't find out until everything had already been put together. Simply by doing visual inspections, they saved a lot of money."

In yet another AI success, Converge helped an international developmental bank create AI-driven search solutions that enable employees to find staff resources and access knowledge from across the organization in a matter of seconds. These solutions incorporate natural language processing (NLP) capabilities to overcome the communication barriers in an organization that has 29 locations across the Americas and uses four different languages.

"These NLP search solutions helped the bank save more than \$5 million a year in wasted time — by enabling employees to easily find the people and the information they need, and by speaking the language that they use for their business."

The supporting technology

It takes a lot of computational power to train and run AI models, and this is where Dell Technologies enters the picture. Converge works with Dell, among other IT partners, to find the right infrastructure to power its tailor-made AI solutions.

With its media-buying client, for example, Converge worked with Dell to deploy an on-premises high performance computing environment that includes leading-edge Intel-based servers with GPU accelerators. Products in this cluster include:

- Dell EMC DSS 8440 server with Intel Xeon Scalable processors and up to 16 GPUs
- Dell EMC PowerEdge MX7000 modular chassis
- Dell EMC PowerEdge R840 server with Intel Xeon Scalable processors and Intel Optane memory
- Dell EMC PowerEdge R740 server with Intel Xeon Scalable processors

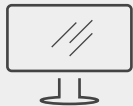
Converge has used similar configurations for its solutions for AI vision and natural language processing/natural language understanding.

Working with Dell Technologies

Converge maintains a close relationship with Dell Technologies. In a testament to the strength of this relationship, all of the U.S. members of the Converge family of companies are Dell Technologies Gold partners, and the company's Canadian subsidiary, Northern Micro, is a Dell Technologies Titanium partner.

This level of partnership is proof of Converge's credentials and its ability to deliver Dell products, services and solutions, including HPC infrastructure, storage, hybrid cloud and data protection offerings.

As Converge CEO Shaun Maine notes in a new release on the partnership, "By layering Dell EMC technologies onto our existing capabilities, we are enhancing our existing Hybrid IT solution set and delivering more options and value to our customers."



[Learn more](#) about Dell EMC advanced computing



[Unlock](#) the value of data with artificial intelligence



[Share this story](#)