

Fast-Growing Global Equipment Manufacturer Chooses China Telecom Americas to Connect All of its Locations Worldwide

Douglas Dynamics, Inc.

Home to the most trusted brands in the industry for 65 years, Douglas Dynamics is North America's premier manufacturer of vehicle attachments and equipment for snow and ice management, customized truck solutions, turf care and industrial maintenance.

Based in Milwaukee, Wisconsin, Douglas Dynamics has received numerous industry awards and has been named one of the fastest-growing public companies in Wisconsin for the past three years. Partnering with dealers, suppliers and end users, the company has 10 locations around the globe, including over a dozen product engineers and sourcing specialists in Beijing, its only location in China.

Douglas Dynamics, a NYSE public company (PLOW), is also known for its innovative high-quality products that help its customers in North America — and in many parts of Europe and China — increase efficiency, productivity and profitability. Its well-known brands include FISHER, SnowEx, WESTERN (snow and ice management); Henderson (truck equipment); TurfEx (turf care) and SweepEx (industrial maintenance). Douglas Dynamics manufactures its products at three locations in the United States — Maine, Wisconsin and Michigan.

Business Challenge

Douglas Dynamics uses one main server, located at its headquarters in Milwaukee, for all of its data and voice transmissions. It uses a cloud-based

telecommunications system. Employees across all of the company's brands access and transmit data and files 24/7 from any device, through a CITRIX Virtual Desktop Interface (VDI) connection.

With international operations and geographically dispersed personnel, Douglas Dynamics needs reliable, fast and secure connections that are always on, providing access to all employees across its many locations throughout the world.

In addition, the Chinese Internet is oversubscribed. China is the largest Internet market in the world with over 670 million users — three times greater than the U.S. This massive number of people using the Internet results in a congested and slow experience, particularly at peak hours throughout the day. High levels of latency and packet loss can be commonplace.

“China is the factory to the world and the world's largest Internet market. China Telecom Americas knows this market and has made greater investments in Chinese infrastructure than any other provider.”

- Jon Crane, IT Analyst, Douglas Dynamics



Customer Problem

The Douglas Dynamics engineers and sourcing specialists in Beijing need the ability to transmit and receive voice and data packets that are housed on the server in Milwaukee.

But for several years, the company struggled with inconsistent and often unreliable Internet connections in China. With limited connections, Douglas Dynamics employees in China could not use the company's data systems they needed for their jobs, or communicate with their colleagues at other locations around the world.

Douglas Dynamics' commitment to delivering industry-leading products to its customers, maintaining close relationships with partners, and continuous innovation and improvement is part of the company's DNA. Advancing technology is a critical component of its market strategy, and the challenges with connectivity were significant impediments to that principle.

"When we opened our location in Beijing, we used a different MPLS [Multi-Protocol Label Switching] provider. They were expensive, but reliable," said Jon Crane, IT Analyst at Douglas Dynamics. "After a few years, we decided to try an Internet-based solution for a variety of reasons, and we immediately started having network problems. We then tried a few different international carriers, but none could provide the low latency and security we needed. The network kept going down, and we were very frustrated. We didn't have an MPLS connection for over three years. And then we found China Telecom Americas."

Why Douglas Dynamics Chose China Telecom Americas

"What impressed us most about China Telecom Americas was its local expertise in China," Crane noted. "Unlike the North American-based carriers, China Telecom specializes in networks running in China. They have good local contacts, know the culture and speak the language, making it a smooth transition. We were pleased that the sales and engineering team understood our problem, but didn't try to push a pre-packaged solution on us."

How China Telecom is Different

China Telecom has the Best Infrastructure in China

Unlike the North American-based service providers, China Telecom is the world's largest — and fastest — fixed line and broadband network operator. They deliver superior results by investing more than any other provider in terrestrial and cable infrastructure, including cloud, terrestrial and submarine cables. In addition, China Telecom:

- Owns 70 percent of the fixed line infrastructure in China
- Owns 80 percent share of the Chinese data center market
- Operates 70+ PoPs in key metro areas around the world, including more than 300 PoPs in China

Teams are Both Local and Global — Always Available and No Language Barriers

The team supporting Douglas Dynamics — along with the network operations center (NOC) — is based in Los Angeles, which offers numerous advantages:

- The team in Los Angeles is bilingual and many are native Chinese.
- Because the Pacific Time zone in Los Angeles overlaps with the business day in China, help is just a phone call away. Douglas Dynamics doesn't have to send an email and wait 12 hours for a response — and they don't have to call in the middle of the night.
- China Telecom Americas has a U.S. project manager who works closely with the Douglas Dynamics team in the U.S. — in addition to the team of network engineers — for ongoing 24/7 support.



Customer Solution — MPLS Private Data Network and Global Internet Service

China Telecom Americas provided a 2 MB end-to-end MPLS solution with a Service Level Agreement that guaranteed up-time of 99.9 percent. The new system was up and running within six weeks.

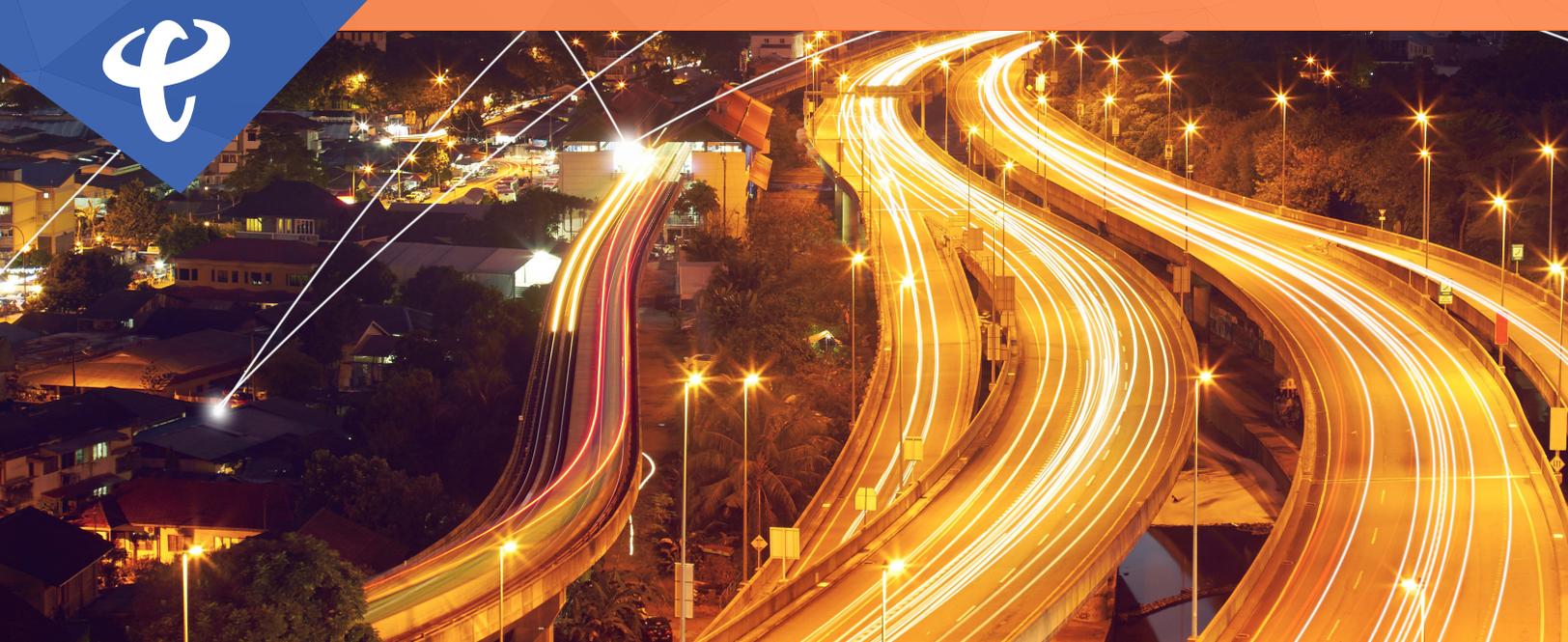
Because the MPLS solution is a private network, it circumvents all of the problems related to the Chinese firewall and Internet capacity roadblocks.

Results — Reliable Performance at a Competitive Price Point

China Telecom America's vast network of Points-of-Presence (PoPs) within the United States and throughout China made it possible to efficiently use a private MPLS data network that can reliably connect Douglas Dynamics' Beijing location with its headquarters in Milwaukee. China Telecom Americas provides a number of high-value benefits to its customers:

- Secure, reliable high-speed data transport
- Guaranteed low latency
- Minimized levels of packet loss
- An optimized network that best addresses Chinese infrastructure
- Faster time to market: implemented within six weeks
- Very competitive pricing

"It was easy to develop a good relationship with China Telecom Americas. They have a small company feel and they're very responsive. The entire team is very competent and well-versed on the problem and solution. Having a telecom provider with a network operations center (NOC) in Los Angeles and a backup NOC in China supports our on-going network needs. The time zone overlaps with the business day in Beijing, which is much more efficient than having a team based on the East Coast." — **Jon Crane**, IT Analyst, Douglas Dynamics



Partnership with China Telecom Americas Delivers Lasting Benefits

Consistent levels of service and reliable connections across continents have been critical to Douglas Dynamics' success. Their partnership with China Telecom Americas enables performance that allows the company to focus on continuous improvement and innovation as they develop next generation products for their customers throughout the world.



To learn how China Telecom Americas can help your business, please contact China Telecom Americas sales at sales@ctamericas.com.

About China Telecom

China Telecom Corporation Limited is one of the world's largest and leading integrated information service operators, providing wireline and mobile telecommunications services, Internet access services, information services and other value-added telecommunications services in China and in 70+ countries around the globe. As a wholly owned subsidiary, **China Telecom Americas** leverages the corporation's vast infrastructure and experience in China to provide reliable data, IP and voice wholesale services to companies, organizations and international carriers requiring international access to China and beyond. With headquarters in Herndon, Virginia, and offices in Chicago, Los Angeles, New York, San Jose, Toronto and Sao Paulo, China Telecom Americas provides locally-based, one-stop-shop, and turn-key solutions for everything from Chinese domestic and international data circuits to IDC services, network management, equipment management, system integration, and much more. In 2016, China Telecom was named a Best Telecommunications Company in Asia and a Best Company in China, by *FinanceAsia*.¹ It ranks 132nd on the Fortune Global 500² list, by revenue.

¹ News release about FinanceAsia awards <http://www.chinatelecom-h.com/en/media/news/p160525.pdf>

² Fortune, July 2016 <http://beta.fortune.com/global500/china-telecommunications-132>