

# Automotive

## Accelerating the Future of Transportation with High-Speed Big Data Transfer

The automotive industry hasn't experienced this much disruption since the advent of the Model T. Artificial Intelligence and connectivity are ushering in a new era of self-driving cars. The amount of data collected by vehicles and shared across networks is exploding. On the development side, big data is being used to accelerate production & improve car features. Dealerships are evolving as well to better serve digital customers. The connective glue across these changes is the flow of data. In this new era of transportation, speed is defined by the movement of data, not MPH.

### Industry Trends and Innovations

#### Rapid Vehicle Development

In response to rapid innovation & new competition (e.g. Google, Uber, Tesla), automakers are accelerating engineering and production using big data analytics, advanced simulations and collaborative global teams working around the clock.

#### Digital Retail Experience

Customers today start car buying online before heading to a dealer. To improve the experience across all channels, car makers are enhancing dealerships with rich media & new technology and using big data to better target and customize offers.

#### Connected Cars

From downstream content (e.g. consumer entertainment and HD navigation) to upstream content (e.g. sensor and location data), the amount of digital information flowing across mobile networks is soaring.

### Key Industry Challenges

- Keeping Up with Disruptive Innovation
- Managing International Development
- Accelerating Production Cycles
- Combating New Market Entrants
- Turning Big Data into Engineering Insights
- Evolving Dealerships in a Digital World

### Aspera Solution Suite

Aspera offers a complete portfolio of software products built with its patented FASP® transfer technology that allows automotive companies to move, share, send and sync large files or large collections of files globally at maximum speed, with bullet-proof security and fail-proof reliability – regardless of file size, transfer distance, or network conditions. Aspera's suite of solutions address all big data movement challenges including:



### The Aspera FASP Advantage

**Fast**  
Move data hundreds of times faster than TCP by fully utilizing bandwidth, regardless of file size or transfer distance

**Secure**  
Enterprise-grade security with SSH authentication, data encryption in transit & at rest and data integrity verification

**Controlled**  
Real-time, centralized control over transfers, nodes and users, with comprehensive logging and reporting

**Reliable**  
Dependable transfers with auto resume for partial or failed sends

### Aspera Moves Data 100X+ Faster Than FTP

MOVING A 10GB FILE				
	Network Bandwidth	Across US	US - Europe	US - Asia
Legacy Transport	100 Mbps	10-20 Hours	15-20 Hours	Impractical
	1 Gbps			
	10 Gbps			
Aspera FASP®	100 Mbps	14 Min	14 Min	14 Min
	1 Gbps	1.4 Min	1.4 Min	1.4 Min
	10 Gbps	8.4 Sec	8.4 Sec	8.4 Sec

## Use Cases

### Use Case 1: Global Automotive Engineering

#### Challenge

Significant production delays due to slow or failed transfers of large CAD files, test cases and design documents between globally dispersed engineering teams, test facilities and manufacturing sites.

#### Aspera Solution

Shorten development cycles and improve collaboration with Aspera's suite of high-speed transfer and sync solutions for distributing and replicating large engineering files and critical test data anywhere in the world.

### Use Case 2: Automotive Big Data Analytics

#### Challenge

Unable to aggregate huge volumes of silo'ed data (e.g. test simulations, plant capacity, telematics, maintenance records, customer data, etc) into HPC clusters for big data analytics using legacy FTP tools.

#### Aspera Solution

Ingest TBs of data into HPC servers at maximum speed over global WANs with Aspera high-speed transfers. Quickly and securely deploy findings to remote engineers, production sites or corporate teams with Aspera Shares.

### Use Case 3: Marketing Asset Deployment

#### Challenge

Sending HD video, high-res marketing assets and large promotional files to dealerships, field marketing, PR teams and retail partners is slow over the network and restricted by file size constraints of traditional file sharing tools (e.g. email, SharePoint).

#### Aspera Solution

Share 4k video and large digital marketing assets of any size at maximum speed globally to remote dealerships, vendors and marketing teams using Aspera Files collaboration suite. Supports deployment on any type of infrastructure (cloud, on-premises or hybrid).

### Use Case 4: Autonomous Vehicle Innovation

#### Challenge

Developing advanced driver assistance systems requires sharing petabytes (PBs) of real world video, HD map data, sensor logs and simulation data between cars, engineers and testing teams. Traditional data transfer tools can't move these massive file volumes.

#### Aspera Solution

With Aspera's high-speed transfer software, automotive companies can transfer PBs of real world video and HD map data collected by vehicles to remote development teams working on next, gen software for self-driving cars, in hours rather than weeks.

### Use Case 5: Vehicle Data Collection & Distribution

#### Challenge

Uploading and downloading HD media files, navigation updates, telematics & other large data to vehicles in transit is slow, insecure and unreliable over mobile networks.

#### Aspera Solution

Securely and reliably deliver and collect rich vehicle content and data at speeds 3x faster over cellular networks using Aspera's Mobile SDK.

## Customer Success Stories

### 50x Faster Delivery of Crucial Field Test Results Worldwide

Using Aspera Enterprise Server, a leading automaker significantly reduced the transfer time of 100GB field test results to engineering teams in Asia, Europe & the US to lower product development and design timelines substantially.

### Vehicle Data Rapidly Ingested to Cut Development Costs

A car manufacturer uses Aspera software to aggregate massive volumes of global engineering data in minutes for advanced crash simulations in HPC clusters, resulting in substantial cost savings to the vehicle development program.

### Just in Time Firmware Updates Keep Assembly Line Running

Vehicle R&D teams in Germany use Aspera Shares to distribute up to the minute firmware updates directly to the manufacturing line in Argentina 90x faster than legacy MFT tools to keep the assembly line running without costly interruptions.

**Questions?** Learn more at [www.ibm.com/aspera](http://www.ibm.com/aspera) or contact Aspera Sales at [aspera-sales@ibm.com](mailto:aspera-sales@ibm.com)