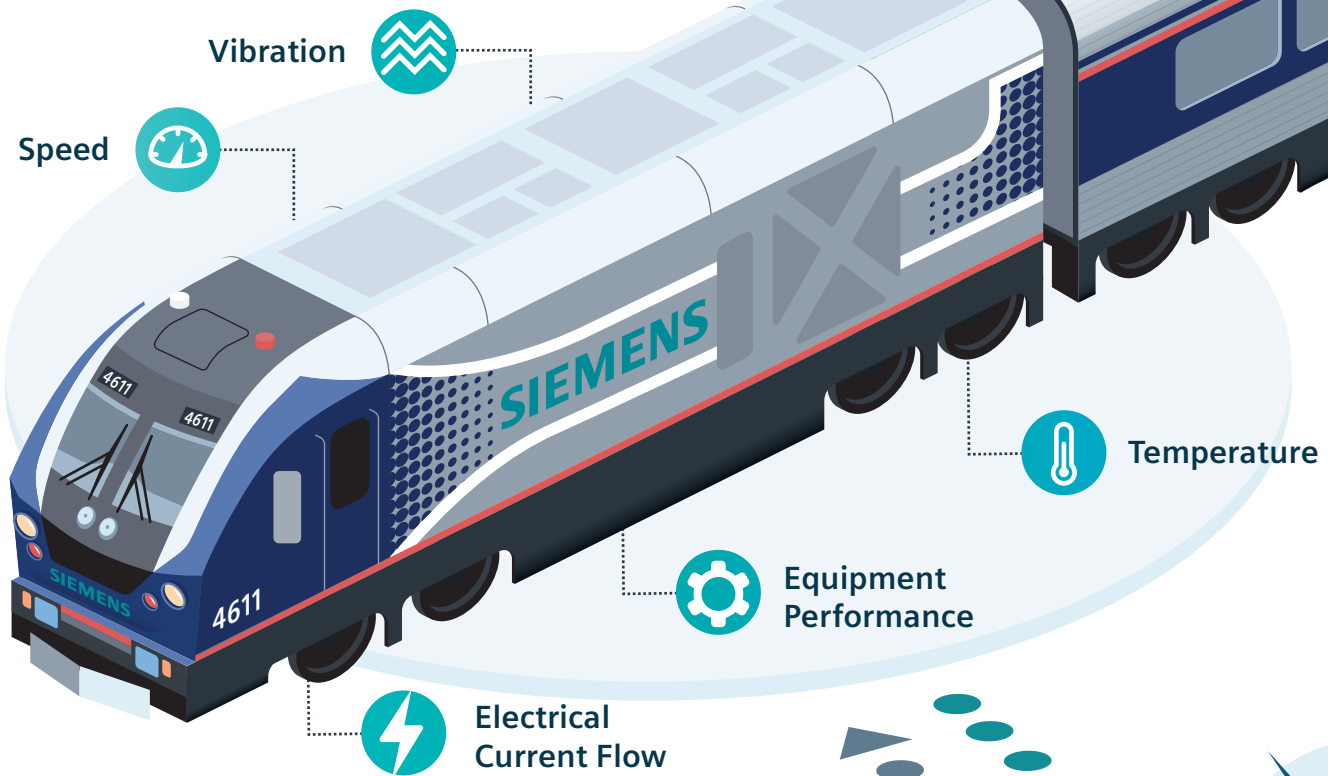


Internet of Trains

Today, rail vehicles send between one and four billion data points per year and rail infrastructure can send billions of messages just inside a specific system. Siemens is taking experience from its global rail footprint and its extensive company-wide digital expertise to turn these billions of data points into action.

800 Data points analyzed continuously from each locomotive



A new locomotive service hub in New Castle, Delaware will use the latest in digital and predictive technology to remotely maintain Siemens locomotives for customers across the U.S., including the ability to detect malfunctions well before they can cause problems and information that helps improve arrival times and punctuality for riders.

New Castle Locomotive regional digital service, supply chain, and technical field service hub

44,000

Square Foot Facility

140+

Siemens-built locomotives will be monitored

86

Service employees at Siemens locations & customer sites across the U.S.



The Siemens team is already putting its data capabilities to use by working with Amtrak to monitor and analyze data from 70 Siemens-built ACS-64 locomotives running along the Northeast Corridor.



On-board information is sent automatically to Siemens "Smart Cockpit" software that helps analyze and flag any items that require closer attention, like if a locomotive is exceeding certain temperature levels. The Siemens team reviews flagged items and recommends actions that are relayed directly to the local technical advisors and

Amtrak maintenance experts at the depots along the corridor. Data already collected has led Siemens and Amtrak to design and implement software updates that improved the ACS-64's performance, helping Amtrak achieve about 33 percent fewer delays in 2016 compared to 2015.