Geocomp designed, installed and commissioned the Structural Health Monitoring (SHM) system to this signature project from integration and design to state-of-the-art software. The system is composed of a monitoring portion and evaluation.

- The monitoring portion is the real-time data collection from approximately 1,000 sensors measuring the bridge response to load and environmental effects. The majority of the data acquisition systems were built by Geocomp with elements synchronized to within 3 milliseconds.

- The evaluation part is the reporting of the current load and health conditions through Geocomp’s fast, secure and flexible iSiteCentral® software platform. The key parameter display and reporting functions of iSiteCentral® provide various performance metrics such as geometrical displacement, vibrations, expansion joint performance, fatigue, etc.

**PROJECT BRIEF**

**Governor Mario M. Cuomo Bridge**

Largest Structural Health Monitoring System in the U.S.

“Geocomp's end-to-end structural health monitoring system covers all aspects from selection and integration of reliable sensing hardware to providing insightful performance indicators through iSiteCentral® software platform.”

**DESIGNING & INSTALLING THE MONITORING SYSTEM ON THE LARGEST DESIGN-BUILD STRUCTURE**

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**BACKGROUND**

Governor Mario M. Cuomo Bridge replaced the Tappan Zee Bridge crossing the Hudson River between Tarrytown & Nyack located 20 miles north of New York City. The new bridge is a 3.1 mile long cable-stayed twin span structure designed for a 120 year service life to remedy the issues of the highly deteriorated old bridge. Geocomp worked with the bridge designer, HDR, and the owner, NY State Thruway Authority to finalize the design of a SHM system that would serve the design objectives. Geocomp procured, installed, and commissioned all elements of the system and now provides maintenance and assessment.

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