Fast convergence of Trimble CenterPoint RTX by regional augmentation

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The Trimble CenterPoint RTX service was introduced in 2011. It provides real-time GNSS positioning with global coverage and fast convergence. A regional augmentation approach was introduced for the mid-west region in the US in 2011 too, which resulted in convergence times of as little as a one minute while providing centimeter accurate positioning results of 4 cm in horizontal (95%).

In spring 2014 the BeiDou system was included in the Trimble CenterPoint RTX service. Today it supports GPS, GLONASS, QZSS and BeiDou signals. Earlier publications have shown the benefits of using Galileo, BeiDou and QZSS in the RTX positioning service.

This presentation will introduce improvements achieved with regional augmentation systems using the Trimble RTX approach. Experiences made in the last years and the recent achievements are shown demonstrating the possibility of reliable initialization using carrier phase ambiguity resolution in a couple of minutes using a correction signal from a geostationary L-band satellite.