



Acquisition Hardware for Rapid Seismic Event Notification System

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The key requirements for Rapid Seismic Event Notification System are:

- a) Quick delivery of digital data from seismic station to the acquisition and processing center;
- b) Data integrity for real-time earthquake notification in order to provide warning prior to significant ground shaking

These two requirements are met in recently modified REF TEK 130 series seismic Recorder.

1. The modified data acquisition algorithm in the enhanced 130 Recorder allows output digital data every 0.2 sec. This is a significant reduction in the time interval required for real-time transmission of the currently available digitizers. The packet size varies depending on the sampling rate.

2. Modified REF TEK Protocol Daemon (RTPD) receives the digital data and acknowledges data received without error. It forwards this "good" data to processing clients.

The 130 Recorder keeps tracks of what data has not been acknowledged and re-transmits the data giving priority to current data.

The modified telemetry algorithm in the 130 Recorder provides a unique opportunity for customers to meet the critical requirements of the Rapid Seismic Event Notification System to detect strong ground shaking at one or several locations and transmit the notification ahead of the seismic energy effects the populated area.