

# Wireless Seismic Hybrid Radio Telemetry

RT3 and RT2 feature a robust **Hybrid Radio Telemetry (HRT)** system that enables your seismic data acquisition project to continue, uninterrupted, even if radio connectivity is temporarily lost for portions of the spread. You can be confident in knowing that your seismic data are safely recorded and stored and that your crew can continue to operate at its maximum efficiency with the **HRT** capability.



## Hybrid Radio Telemetry

The standard operating mode for RT3 and RT2 is real-time wireless recording with auto skip-healing, should any recording units lose radio connectivity. With the hybrid telemetry mode, if radio connectivity is partially lost and auto skip-healing cannot overcome the immediate problem, then “stranded” recording units will immediately switch to operating autonomously, buffering their seismic data into local flash memory. When radio connectivity is restored, buffered seismic data are wirelessly transmitted back to the Central recorder. Alternatively, autonomous recording can be user-selected at any time—where data will be buffered into local flash memory while real-time QC data continues to stream to the Central.

## Benefits and Advantages

**HRT** further automates and simplifies the operations of RT3 and RT2, making the radio network essentially self-sustaining and uninterrupted data acquisition a reality. Data are always stored safely in local flash memory until successfully transmitted to the Central recorder, delivering **DATA ASSURED** recording—where crew performance becomes effectively immune to reduced radio connectivity. Data are always saved to the end of the record, even for interrupted shots, saving costly and time consuming re-shoots. The systems can operate concurrently in both autonomous and real-time modes. The operator can manually switch selected recording units into autonomous mode and real-time QC information continues to flow to the Central for the autonomous units. All other recording units remain in real-time data collection mode.

**HRT** offers a number of advantages when compared to “blind” autonomous nodal systems, including:

- No complex data harvesters—data are transmitted to Central wirelessly
- No transcription trailers and related computer hardware
- No skilled field technicians required to transcribe data—data transmitted via the **HRT** system are aggregated automatically into the proper disk file, without manual intervention
- No “last patch” effect—no huge backlog of recording units to transcribe after the last shot is taken
- No need to purchase 10% to 15% more autonomous nodes to support data harvesting and/or battery charging functions
- No delayed decisions from waiting for data collection and transcription

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