Society of Exploration Geophysicists
November 2008 – Las Vegas, Nevada

Mandalay Bay Casino – home to the 2008 SEG Convention.

SEG presentations ranged from plenary sessions on global warming and water resources to more *a propos* matters such as Aramco's seismic production monitoring and a claim from Repsol-YPF that commodity supercomputing heralds the demise of the seismic processor as we know it! Controlled source electromagnetic prospecting (CSEM) continues to defend its 'breakthrough' status while suffering from lack of take up. Seismic-derived geomechanics is extending application into development and production. Prestack processing is getting more interactive with several companies offering ingenious ways of visualizing these massive data sets which themselves continue to grow at a staggering rate. WesternGeco announced a 150,000 channel land recording system designed for single geophone point recording and beam steering applications. Paradigm rolled out its novel 'seismic dipmeter,' a.k.a. Earth View 360, a multi azimuth amplitude versus offset processing technology.

The big issue for seismologists is seismic imaging – especially compute intensive reverse time migration. This in term means high performance computing, the subject of a special session and a workshop. Here a rich tapestry of novel solutions include graphics processor-based supercomputers (billed as the return of vector computing), field programmable gate arrays (billed as the return of the array processor), and other novel solutions from Convey and SiCortex. The mainstream cluster community is skeptical of the claims made for the new architectures and is fighting back with its own extensions to the ubiquitous x86 cluster – notably Intel's Larabee GPU extension. Building and maintaining the HPC behemoths was discussed at length in the workshop. Here, vendor solutions include containerized systems complete with water cooling. Just add ping, power and a parking lot for an instant data center!

Highlights

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