High-powered integrated studies
Workflow that include data handling based on stochastic principles and multiprocessor cluster computing can significantly decrease the turnaround time of integrated reservoir studies. Standardization and modularization of study processes and dedicated project teams also maximize the quality of those studies.

DCS offers high-quality integrated studies enabled by robust, market-leading applications, including Petrel® seismic-to-simulation software and ECLIPSE® reservoir simulation software. The studies rely on a great degree of automation on latest-generation cluster technology. DCS utilizes one of the most powerful commercially available clusters in Russia, a Windows-based HPC 2008x86-64, which can run up to 320 Petrel and ECLIPSE licenses in parallel or in serial.

Defining strategies and roadmaps
The stochastic integrated study approach analyzes all influencing parameters, allowing a decision-making process that considers all probabilities and possible outcomes. Risk analysis is performed and mitigation strategies are evaluated and optimized.

The stochastic integrated study approach analyzes all influencing parameters, allowing a decision-making process that considers all probabilities and possible outcomes. Risk analysis is performed, mitigation strategies are evaluated and optimized, and the value of information can be extracted. That value enables the definition of data acquisition strategies and creation of roadmaps to increase knowledge gained during operations.

Flexibility and scalability
The modular nature of the workflow and applied technologies allows scalability. Problems can be studied in any resolution, in any detail, and within any time frame. The workflow supports the entire top-down modeling approach, which can range from rapid field development exercises that can take only weeks to detailed, fully integrated reservoir studies that can take up to a year.

Enormous computing and software power means numerical model sizes of tens of millions of grid cells can be quickly and efficiently run even over multiple realizations.

The sheer computing power and the high degree of automation allow in-time modeling approaches that support the decision-making process in operations—from well construction to reservoir management.