

AUTOMATED

INTELLIGENT

INTEGRATED

OPTIMIZED

OneStimSM

Maximize Returns on Your Unconventional Investment

As Schlumberger's flagship for fully integrated, simultaneous unconventional completion operations in North America, OneStim delivers industry-leading pumping efficiency with reduced completion costs. We align industry-leading technologies and proven operational best practices to deliver a truly differentiated performance.



Start Producing from Your Wells Faster

A number of factors contribute to efficiency during unconventional completions: Quick deployment, equipment reliability, and failure-point elimination all streamline operations to help you get to production in less time.

First-class reliability, second-to-none efficiency

Well-maintained equipment gives OneStim the agility to quickly respond to your operational needs. Hundreds of data points captured by the equipment each second are automatically processed to ensure optimal performance. When needed, early alerts are generated to ensure preventive maintenance is performed. Real-time data is also streamed to reliability centers where domain experts can further analyze and identify trends. This proactive approach prevents untimely equipment failures and reduces downtime, improving efficiency on your jobs.

Technology spotlight: automated stimulation delivery platform (ASDP)

Conventional stimulation equipment automates only a few mixing and pumping functions, which cannot meet the demands of modern hydraulic fracturing operations. By integrating the sand delivery system, low-pressure blending, and high-pressure pumping, the systems work synergistically to optimize operations, increase efficiency, and minimize HSE risk. The ASDP meets growing requirements for more stages per day.



Making human error a thing of the past

Technologies such as the automated pump system address many of the problems in today's high-intensity hydraulic fracturing market. By fully automating all high-pressure pumps, rate control is now more efficient, consistent, and safe. This approach increases pump efficiency, minimizes equipment failures, and reduces downtime on location. In addition to maximizing pump reliability, the automation now enables pressure as a direct input and feedback to the system. This pairing reduces dependency on individual operator decisions, while delivering desired rates more quickly and consistently.

Automated pump system

- Precise control of both rate and pressure
- Customized breakdown and pump schedules
- Increased stage-to-stage consistency
- Greater equipment reliability
- Reduced risk of high-pressure HSE incidents



Expedite Pumpdown Perforating Without Compromising on Safety

Move from wellhead to wellhead faster and safer

During pumpdown perforating operations, OneStim uses technology like the remote wellhead connection system to operate from outside the high-pressure zone, enabling faster wellhead transition times. The system encompasses real-time pressure monitoring and redundant safety systems to prevent accidental pressure release.

Remote wellhead connection system

- Faster well swaps
- Automated connections and disconnection, with intelligent lockouts to prevent accidental opening under pressure
- Remote pressure monitoring
- Eliminated need for personnel to work at heights, under suspended loads, or potential pressure sources

BHP Billiton Deploys 467 Fractal System Guns with 99.1% Reliability

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Technology Spotlight: Fractal perforating system

Fractal* multistage stimulation perforating system for fracturing job optimization incorporates a fit-for-purpose modular design that optimizes multistage fracture stimulation. Electrically prewired at the manufacturing center, the Fractal perforating system requires only minimal assembly on location. This approach improves reliability, increases safety, and enhances efficiency.

Simplified MonoFlex Technology Reduces High-Pressure Connection Joints by 90%

Technology spotlight: Equipment deployed fast, rigged up even faster

By combining Cameron and OneStim completion expertise, Schlumberger is able to provide the most complete and efficient hydraulic fracturing portfolio in the industry. Technologies such as MonoFlex* dual-connection fracturing fluid delivery technology expedite rig-up and rig-down time and reduce NPT associated with connection leaks and minimize assembly risks by using only two connection points. MonoFlex technology also provides a cleaner field location and reduces HSE risk around the wellhead. Bringing even more efficiency to operations is the ValveCommander* automated control and advisory platform, which helps crews stimulate more stages per day by making valve operations seamless.



ValveCommander Platform Simplifies Valve Functioning During Multiwell Fracturing

Technology spotlight: ValveCommander advisory platform

ValveCommander automated control and advisory platform streamlines the process of operating valves during multiwell frac operations. With this solution, operators can control frac valves with the click of a button from inside the Command and Control Center, where they will have the ability to monitor the position of the valves in real time, throughout the operation.



Produce Earlier with Optimized Frac Plug Technologies

Mill out faster, or bypass milling altogether

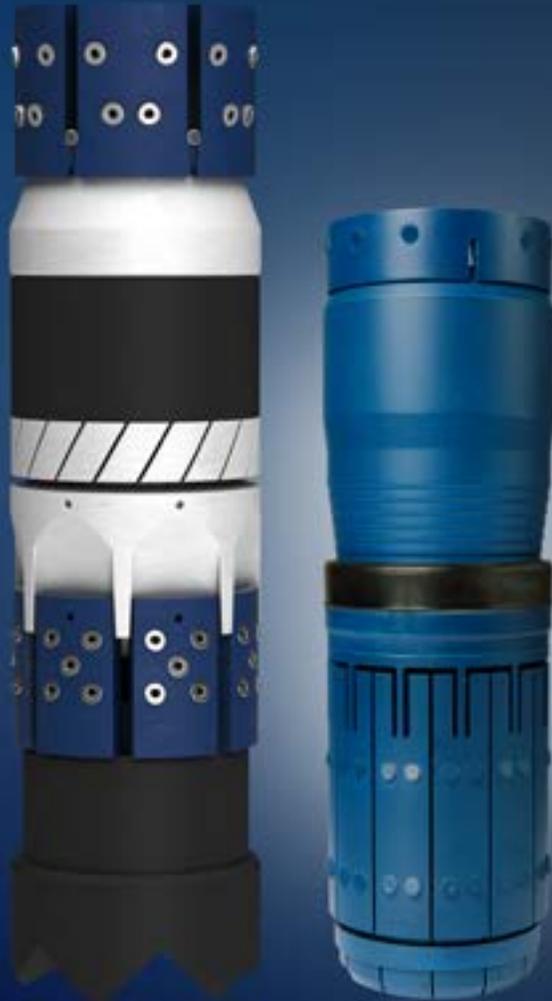
OneStim uses Schlumberger's broad portfolio of multistage fracturing systems that are designed to stimulate multiple stages efficiently and effectively. Conventional frac plugs with reduced metal content make for faster millout, and dissolvable frac plugs enable production without time-consuming milling operations.

Technology spotlight: FracXion and ReacXion plugs

FracXion Micro* fully composite frac plugs are designed for rapid millout and produce small-size cuttings. The plug's mandrel-less design provides class-leading reliability and utilizes proprietary element designs to assist in breakup while milling and prevent long "rat-tails" of rubber. ReacXion Complete* fully dissolvable frac plug has the largest flow-through ID in the industry allowing immediate flowback during dissolution, and requires no milling or intervention in the well.



Click video image to watch animation.



Improve Unconventional Wells with Integration

Operators must consider more effective stimulation processes as the nature of unconventional completions quickly transforms. More than 30% of fractures do not contribute to production, and there is a growing risk of parent-child well interference. Getting the most from your unconventional reservoir means taking the necessary steps to predictively model fracture networks, stimulate using effective diversion technology, and monitor well performance.

Minimize Detrimental Frac Hits

When the fracture network of a newly drilled well connects to an older well's fracture network, both wells share similar drainage space, which affects the production rates for both wells—often significantly. In addition, as a result of the frac hit the older well may fill with sand and fluids, requiring an expensive cleanout to restore production.

OneStim's philosophy has helped operators avoid this costly well-to-well communication. We work with you to

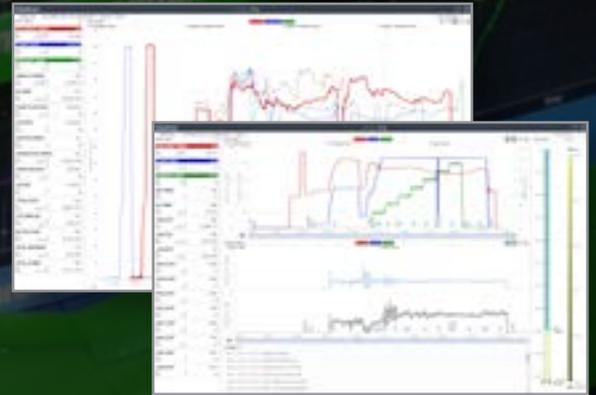
- build a solid reservoir model
- construct the well to deliver maximum zonal isolation
- design the completion to maximize fracture complexity while minimizing the risk of detrimental frac hits
- monitor the frac job so you can react to unexpected challenges.

Technology spotlight: Kinetix Shale software

Kinetix Shale* reservoir-centric stimulation-to-production software provides an opportunity to design and orchestrate fracturing simulation treatments and perform production forecasts for any type of completion in unconventional formations. The software models key elements to maximize production and recovery, enabling planning for optimal well landing, completion selection, spacing, and scheduling.

Technology spotlight: Real-time stimulation viewer

The real-time stimulation viewer delivers real-time job data from stimulation operations to any remote PC, tablet, or mobile device, simplifying collaboration and analysis. Users have easy access to well diagrams, data tables, treatment and additive plots, and job comments entered by the wellsite operations supervisor. For simultaneous operations on multiple wells, a one-button live view option populates a list of all active stages.



Kinetix Shale software
improves production
by 86%

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Improve Fracturing Decisions with Better Data

Technology spotlight: WellWatcher Stim service

Monitoring stimulation effectiveness might not be top-of-mind when planning well completions, but as the risks of well-to-well contact are more evident, real-time analysis of fracture effectiveness is quickly becoming a necessity. Technologies such as the WellWatcher Stim* stimulation monitoring service not only enables confirmation of stimulation success but also allows quick decisions to be made during production cycles.

WellWatcher Stim service verifies **effective diversion and lack of well-to-well contact**

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Avoid Frac Hits with Better Fracture Control

Technology spotlight: BroadBand Shield service

BroadBand Shield* fracture-geometry control service stimulates production in unconventional wells while limiting the risk of communicating with neighboring wells or fracturing into undesirable zones. Particularly useful for infill wells and multiwell pads in tightly spaced fields, the service delivers engineered fracture stimulation treatments that constrain fracture growth with far-field diversion.

BroadBand Shield service prevents frac hits, eliminating sand cleanout and oil deferral concerns

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The technologies highlighted are just a part of our broad well completions portfolio, which spans the entire completions cycle — No other service company can offer more.

To learn more about our featured technologies, please click the links below for access to technical papers, case studies, and more.

- Automated stimulation delivery platform (ASDP)
- BroadBand Shield fracture-geometry control service
- Fractal multistage stimulation perforating system
- FracXion and ReacXion frac plugs
- Kinetix Shale reservoir-centric stimulation-to-production software
- MonoFlex dual-connection fracturing fluid delivery technology
- WellWatcher Stim stimulation monitoring service

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