Automation for a new future in oil and gas

Automation is less about the actual playbooks for automating devices and more about how teams interoperate and collaborate seamlessly as part of an existing IT business workflow.

The oil and gas industry is at a turning point

In the oil and gas industry, unexpected and significant disruptions in demand impacted an already volatile market in 2020. At this critical turning point, energy companies will need groundbreaking strategies and decisive action to recover and move forward.

According to a McKinsey assessment of the industry's short- and long-term outlook:[1]

▸ Demand is projected to return to pre-2020 levels within four years.

▸ After peaking in 2029, fossil fuel demand is projected to slowly decline.

▸ Renewable sources are expected to account for more than 50% of global power generation by 2035.

The ongoing transition to renewable energy is poised to change the market significantly. New companies will emerge while incumbents increase investments in current renewable sources or move into new areas, including hydrogen, ammonia, and methanol.

Leaders need to use the short-term demand in the current market to prepare for a very different future. Energy companies can prepare for coming changes with actions ranging from cutting general, administrative, and operating costs to fundamental changes in strategy and business models.

By adopting an "automation-first" philosophy, companies can gain the agility and efficiency required to keep pace in the energy industry's ever-changing environment. Those who take bold steps to anticipate the future market—starting now—will be positioned for success. Those who move cautiously and hold back will struggle to adapt to new market conditions, making failure a likely outcome.

Automation for a changing industry

As the energy industry faces some of the most dynamic challenges in its history, automation has evolved from being a cost-saving measure into a strategic imperative. Though operational automation has been used in the oil and gas industry for some time, the industry is expanding its usage as the next wave of transformational technologies are implemented. Companies are automating across the supply chain—from oil fields, refineries, and pipelines to fuel pumps and charging stations—resulting in a significant increase in data output.

At each point in the supply chain, millions if not billions of devices connect via an Internet of Things that generates a constant stream of data. Artificial intelligence and machine learning are essential for mining the most value from this data stream, creating a need for in-field mobile and in-plant stationary edge computing that can be optimized with automation.

To competitively adapt to the coming industry changes, oil and gas companies need end-to-end IT automation. Learn seven ways Red Hat Ansible Automation Platform can make it easier for you to control, manage, and scale automation across your domains, processes, and geographies.

IT plays a critical role in the automation-first enterprise. From traditional workloads and applications to new technology integrations and deployments, opportunities for automation span the full IT estate. As IT moves closer to operations at the edge, the benefits of automation will play a fundamental role in line of business value creation.

As a long-term strategy, automation is less about the actual playbooks for automating devices and more about allowing teams to interoperate and collaborate more easily as part of an existing IT business workflow. Supporting automation across multiple teams, inventories, and workflows at scale offers true business value for oil and gas companies.

Automate across IT with Red Hat

Organizations that standardize on Red Hat's IT automation software and supplemental cloud services equip developers and operators to collaborate openly in solving business problems across the entire IT footprint and application pipeline. Red Hat® Ansible® Automation Platform is the foundation of a strategy for delivering scalable IT implementations. Through a software-driven approach, Ansible Automation Platform provides significant productivity, agility, standardization, and compliance advantages, including better control over the cost of managing infrastructure and cloud resources.

For teams with mixed skills, Ansible Automation Platform reduces the complexity of adoption. With Ansible as the common automation language, teams can collaborate and make meaningful contributions to IT operations and to the enterprise as a whole.

Learn more

See how Red Hat Ansible Automation Platform and the Red Hat portfolio can help oil and gas companies to meet market demands now and in the future.

About Red Hat

Red Hat helps customers standardize across environments, develop cloud-native applications, and integrate, automate, secure, and manage complex environments with award-winning support, training, and consulting services.

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