5 Best Practices For Mitigating Risk In The Oil And Gas Industry

It's becoming abundantly clear that energy and utility businesses are facing one of the most complex security environments in recent history. With an increasingly unpredictable array of risks threatening core operations, security teams are under constant pressure to contain them. And disruptions are happening at a greater pace and to a greater extent than ever before. Just a single event has the potential to impair services and cause immediate, significant and ongoing damage to the organization.

Let's take a closer look at what risk factors are threatening your oil and gas business, as well as a few best practices you can use to better mitigate risk.

The state of uncertainty in the energy sector

According to McKinsey research, industries far and wide have experienced a significant increase in disruption over the past few decades. In fact, global uncertainty, geopolitical risk, cyber threats and natural disasters have all steadily risen in the past several years.

Unfortunately, the energy sector is no exception. As one of the world's most critical infrastructures, organizations in the oil and gas industry have very little room for error as they navigate the following five aspects of risk management:

1. **Physical asset security:** Energy organizations need to ensure their pipelines and other essential supply chain components are safe. If a single link in that chain is disrupted by an emerging threat, it can derail productivity and severely damage operations.

2. **Employee safety:** Oil and gas extraction is dangerous enough without the threat of a terrorist attack or extreme weather event. Businesses need to guarantee their field workers are protected during times of crisis, such as during a tropical storm or a hurricane.

3. **Executive protection:** Business leaders are often the face of their company. Consequently, they're also prone to cyber or physical attack. For instance, hackers often target executive login credentials, hoping to access confidential data. In fact, 76% of executives' personal devices are actively leaking information, including sensitive corporate data.

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4. **Geopolitics:** The oil and gas industry is often affected by disruptions relating to global politics or foreign affairs. According to the 2022 Resilience Barometer Survey, gas and oil prices rose to their highest levels after the Russian invasion of Ukraine. In fact, since the end of 2021, prices have surged 200% for gas and 50% for oil.

5. **Brand and reputation:** Protecting the corporate image and public perception from scrutiny has never been more difficult, especially in the face of changing social responsibility standards and consumer expectations. Nearly half of energy companies believe they'll face increased pressure to improve environmental, social and governance (ESG) metrics in the next 12 months.

Managing this increasingly volatile threat landscape is no easy task. Without proper mitigation, risk exposure translates into a significant cost to your company.

Understanding the high cost of disruption

High-impact events are rarely one-off, isolated incidents. More often than not, they produce ripple effects that continue to disrupt the organization and the industry at large.

Consider the Colonial Pipeline attack in 2021. When a criminal hacking group held the company's critical management system for ransom, Colonial Pipeline was forced to shut down operations for several days. The attack sent consumers into panic, created fuel shortages and spiked oil prices. What began as a cyber incident quickly evolved into a physical disruption. In the end, the company paid a $4.4 million ransom on top of what it paid to completely restore its systems.

Or, take the case of the Iraq-Turkey oil pipeline. In 2022, an explosion at the crucial crude oil pipeline caused a fire that prompted operators to halt production. Not only did this disrupt the flow of international oil, it sent prices surging in the aftermath.

No matter the cause, even the briefest disruption can have significant and costly consequences.

5 ways to improve risk management in the energy sector

The good news is that oil and gas companies can take action to better manage threat vectors and reduce their exposure to risk. Let's examine five best practices that can improve risk management capabilities in the energy sector:

1. **Ensure access to the right information at the right time.** Visibility is key when it comes to handling a high-risk event, which is why oil and gas businesses need the most relevant intelligence as quickly as possible. Deploy technologies that alert you to risks moments after they emerge so that you can better assess the threat and make appropriate decisions.

2. **Create an incident response playbook.** Having a tested, standardized and optimized plan of action in place is vital to staying ahead of evolving risks or events.

3. **Develop an ESG plan.** This allows you to proactively address activist investor concerns and social responsibility expectations. Don't wait to manage these matters until prompted to do so by consumers or investors—face them head-on and demonstrate your commitment to sustainability, saving your brand from reputational damage.

4. **Remain vigilant to geopolitical events and legislative changes.** Understand how these factors could impact your organization and whether or not you're in position to capitalize on opportunities or mitigate potential challenges.

5. **Assess the resilience of your supply chain.** Are you flexible enough to adapt to a sudden disruption? Consider implementing redundancies—additional partners, for instance—to bolster security measures.

Using real-time data to stay ahead of emerging risks

When it comes to improving security posture and ensuring business continuity, security leaders need a way to better manage risk.

As an alerting solution, Dataminr Pulse delivers the earliest, most comprehensive signals of emerging risks and high-impact events. With real-time information, you'll know what's happening as soon as it happens, empowering you to get ahead of a situation and organize the most effective response.

For instance, a major Australian utilities provider leveraged Dataminr's real-time information to alert its Security Emergency Response Centre (SERC) that a fire had broken out close to one of the company's buildings in Adelaide. Thanks to the early alert, the SERC team had enough time to organize evacuation plans in case of emergency.

"When you look at Dataminr, my thinking is if it gives you even two minutes advance notice of an event, prior to anything coming through other media, that's money well spent," said the SERC's senior security advisor.

In the oil and gas industry, where extreme weather directly affects operations, having as much information as possible about such events, in real time, is critical. Pulse's geovisualization capabilities enable oil and gas companies to gain a comprehensive view of the alerts they receive, providing the rich visual context needed to better assess pipelines, people and assets at the hyperlocal level.

Many of Dataminr customers have fully realized the benefits of Pulse by taking advantage of its collaborative workflow capabilities, which significantly shorten the time between risk detection to incident management. This includes the ability to create cross-functional playbooks and incident response plans to ensure all stakeholders understand their responsibilities during a crisis. In turn, security teams can deliver the best possible responses and assess performance for continuous improvement.

Schedule your demo to learn how Dataminr Pulse's real-time information can help you protect the future of your oil and gas organization.

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