axway

amplify

NOV Inc.

Global energy equipment provider accelerates delivery of in-demand, value-added customer services

INDUSTRY

Oil and Gas

GEOGRAPHY

North America

CHALLENGE

NOV aims to create new sources of customer value while enhancing operational efficiency. How could the company build the next generation of cloud-based, data-driven services without sending costs soaring?

SOLUTION

Amplify API Management Platform

RESULTS

By deploying a central API management platform in the hybrid cloud, NOV can build internal and customer-facing services in days, not weeks, reducing costs and creating new revenue streams.

In recent years, weakening oil prices, slow economic growth, and intensifying geopolitical risks have exerted substantial downward pressure on margins across the oil and gas sector. To compete effectively in this challenging environment, companies seek both to enhance operational efficiency and to create new revenue streams that offer greater margins and help sustain profitability.

NOV Inc. is a leading worldwide provider of equipment and components used in oil and gas drilling and production operations, and of oilfield services to the oil and gas industry. Operating in a challenging marketplace, NOV is experiencing intense commercial pressure as it balances expansion, costs and opportunity.

Michael Lynch, Director, Application Development & Interfaces at NOV Inc., explains: "Our business has grown significantly through acquisition, and we run hundreds of separate business systems. In addition to making it difficult for different parts of the organization to collaborate, this environment required ongoing investment in management and maintenance, and significantly limited our innovation capabilities."

He continues, "For example, we know that even short periods of downtime can drive up our customers' costs substantially, so maximizing the availability of oil and gas assets is key priority. We see great potential in value-added remote-monitoring solutions using Internet-of-Things (IoT) technologies. We want to harness real-time data feeds from our drilling equipment to offer new high-value services that will help customers carry out preventative maintenance before components fail."

NOV

Simplifying service delivery

NOV recognized that to introduce new IoT-enabled maintenance services, it first needed to consolidate its business systems to simplify operations and enhance efficiency. Moving from legacy applications hosted in on-premises data centers to agile solutions in the cloud promised to deliver the targeted capabilities, and NOV's long-term goal is to become a cloud-first enterprise.

The company determined that an API-driven approach to service delivery had the potential to streamline its journey to the cloud. Rather than incurring the cost, complexity and business disruption of re-architecting hundreds of legacy systems as cloud-native apps, APIs would enable the company to deliver the necessary functionality for IoT and other Industry 4.0 development projects while leaving the underlying systems almost untouched.

As well as cutting time-to-market for new services, an API architecture would allow NOV to migrate its back-end systems to the cloud gradually and in a way that was transparent to the new data-driven services.

"In the past, we delivered APIs through a single, central team in our corporate headquarters, which presented a number of challenges," comments Lynch. "Because our developers lacked a central place to share their work, there was no convenient way to check if a component had been built already. This led to significant duplication of effort, and the average time required to build and deploy an API into production was up to four weeks.

"Adopting an API-driven platform approach meant that API volumes were set to grow dramatically, and we knew that pushing our services through a single team would become a major bottleneck. To solve the challenge, we looked for a new way of working."

Selecting a trusted partner

To help it to achieve its digital transformation goals, NOV selected Amplify API Management Platform. A secure, central and scalable platform, it accelerates the process of building, testing, deploying and managing APIs, and includes advanced analytics capabilities that allow businesses to monitor consumption and maintain high levels of availability.

"Our APIs are an integral part of our digital transformation strategy, and we wanted a trusted partner that would meet our long-term operational needs," explains Lynch. "We narrowed down a list of more than 45 different vendors to a shortlist of just three industry leaders. Of those companies, we felt that Axway offered the optimal package of software, services, and support to meet our needs.

"

Axway's Amplify API Management Platform was the only solution in our shortlist that offered the same rich functionality on-premises and in our Azure and AWS cloud environments.

Michael Lynch, Director, Application Development & Interfaces at NOV Inc.

"One of the areas that Axway really stood out from the crowd was flexibility. We currently operate a mixture of cloud and on-premises systems, which meant that a hybrid model was a key requirement. The Amplify platform was the only solution in our shortlist that offered the same rich functionality on-premises and in our Azure and AWS cloud environments."

He adds: "As well as being one of the longest-established API solution providers, Axway's product development roadmap will make it even easier to move API gateways from on-premises to cloud. We were confident that the solution would help us to move to the cloud smoothly and at our own pace."

Seamless deployment

Working together with a team from Axway, NOV integrated the Amplify platform in a hybrid-cloud configuration. Deployed for high availability, the solution can divert API traffic automatically in the event of unplanned outages in NOV's cloud and on-premises data centers, ensuring critical business services are online 24/7.

"Our engagement with Axway was one of the best experiences I've had on an implementation project in more than 22 years in the IT industry," recalls Lynch. "The technical depth and breadth of the Axway team truly impressed us, and they went above and beyond to help us complete the work on time and without disruption to the business.

"Our hybrid architecture was complex, and there were plenty of tough technical challenges to solve along the way. Throughout the integration project and beyond, we knew that we could always pick up the phone to anyone on the Axway team — from pre-sales and support to consultants and product developers — and get fast answers to our questions. The team's dedication to our success gave me the compete assurance that we'd chosen the ideal partner for our transformation project."

Fostering innovation

Today, NOV developers rely on the new API platform to drive their day-to-day work, including API publishers, app developers and support teams. By offering the business a central environment to build, test and deploy API services, NOV is breaking down barriers to collaboration and fast-tracking the development of value-added services.

"With the Amplify platform, we've removed the bottleneck of routing all API projects through a single corporate team while at the same time maintaining full visibility, governance and control over the services we're building," comments Lynch.

"Amplify Catalog, a central, unified catalog of all our APIs, is also a great is also a great benefit for developers, who can reuse components that their colleagues have created to cut time-to-market for new internal and customer-facing services. In the past, it could take as long as four weeks to deploy an API — today, it typically takes on average, just two days."

"

Our engagement with Axway was one of the best experiences I've had on an implementation project in more than 22 years in the IT industry.

Uncovering new opportunities

NOV is already harnessing its API capabilities to deliver new revenue-driving capabilities to the business. For example, the company has designed an API to help integrate data from customer relationship management systems in multiple business units, and surface potential up- and cross-selling opportunities.

"Although our digital transformation journey is only just beginning, we've been getting very positive feedback from the business," says Lynch. "Our developers are extremely happy that they can create and deliver apps for their users so much more quickly. Greater efficiency in these areas is also great news for our customers, as it will enable us to bring innovative, IoT, mobile, and web-based solutions to market faster."

He concludes: "By shaping new, value-added services for our customers and lean, agile operations internally, we will be well placed to thrive in a challenging commercial environment. The API capabilities we've gained through our partnership with Axway will be crucial to strengthen our margins, and we plan to continue our close collaboration as we move to the next phase of our digital transformation."

"

By shaping new, value-added services for our customers and lean, agile operations internally, we will be well placed to thrive in a challenging commercial environment.

Find how to get your cloud-first strategy off the ground →