# Centralized API Management Energy Sector

## Secure API Ecosystem with Azure

A global energy company needed to update its digital systems to better handle IoT energy devices, APIs, and new regulations. Krish Services Group built a scalable analytics platform on Azure and set up a central API management system. This made their operations more secure, easier to scale, and simpler for developers, supporting innovation in energy and utilities.

## CLIENT BACKGROUND

The client is a global energy and utilities company that provides electricity distribution, renewable energy, and smart grid services. They use IoT energy management systems and API-based platforms to support their digital growth while managing complex integrations and meeting strict regulations.

## BUSINESS VALUE

- **Streamlined versioning**, policy enforcement, and updates across critical energy systems.
- **Stronger security & compliance** and ensured GDPR compliance.
- **Enhanced developer productivity** through branded portal.

## PROBLEMS

- **Centralized API Management Needs:** Required consolidation of diverse APIs under one platform for governance, monitoring, and version control.
- **Security & Compliance Pressures:** Needed to protect sensitive data and meet strict regulations, including GDPR standards.
- **Developer Experience & Scalability Gaps:** Lacked unified documentation, testing tools, and a reliable framework to support growth and integrations.

## TECHNOLOGIES

Microsoft Defender

## SOLUTIONS

- **Centralized API Management:** Catalogued and imported APIs from smart meters, billing, and customer portals into Azure API Management using Swagger/OpenAPI.
- **Enhanced Security & Compliance:** Configured OAuth2, IP whitelisting, encryption, and audit logs to meet GDPR and regulatory standards.
- **Developer Enablement & Monitoring:** Launched a branded developer portal with documentation and testing tools, while integrating Azure Monitor and Application Insights for real-time API analytics.

## CONCLUSION

The energy provider is looking to make more of their APIs by exploring new ways to partner, use data, and even offer services that others can build on. This means they can create smarter and more connected energy solutions.