

Accelerating Digital Transformations

relayr enables businesses and organizations to rapidly develop and deploy innovative solutions, equipment, and services for the Industrial Internet of Things (IIoT).



Executive Summary

The Internet of Things (IIoT) is fueling innovation in nearly every aspect of life and type of business. In order to tap into the advantages of IIoT enablement, however, there are significant challenges to connecting and sharing information among millions of things, devices, people, and systems.

relayr provides a flexible, any-to-any, enterprise middleware platform and powerful development tools that enable businesses, municipalities, and organizations of all sizes to rapidly develop and deploy IIoT solutions and services that integrate with both legacy and new infrastructures.

Interconnected Challenges

Companies from across the spectrum of industries face enormous competitive pressure to innovate with new connected technologies. Furthermore, many businesses are heavily invested in legacy systems and technologies that are cost prohibitive to replace. Even enterprises that are building new systems from the ground up often lack the expertise and capabilities to develop market-ready IIoT products and solutions.

Businesses, municipal governments, and other organizations need IIoT solutions that transform what they can do; yet are simple to deploy, cost effective, reliably supported 24x7, and address the needs of major stakeholders. Executive leadership stakeholders require visibility into costs, timing, scalability, and ROI. Technical stakeholders need solutions and approaches that address their integration, interoperability, and management concerns.

Any-to-any Connections

The protocol-agnostic relayr cloud platform enables businesses and organizations to build connections between any service, any sensor, any software, and any hardware—legacy or new. This any-to-any, horizontal middleware platform allows every component to communicate as a single system—simplifying the myriad of increasingly complicated services, software, hardware, and management systems available today and accelerating deployment of new IIoT solutions and services.

More than 5,000 developers worldwide use relayr's open development tools to create innovative IIoT solutions for this cloud middleware platform. Flexible cloud APIs let developers easily onboard any physical object using any communication method. And relayr's flexible and secure SDKs, connected sensor kits, and tutorials facilitate the creation of prototypes in minutes, and full product rollouts within months.

Intelligence in the Fog

Unlike solely cloud-based IoT platforms, relayr increases responsiveness of connected systems with Intel®-based gateways in the “fog layer,” closer to equipment and devices. Putting intelligence at the edge enables IoT systems to act locally in real time without depending on the cloud. Systems that can respond in real time can make a huge difference in industrial and public safety environments where every millisecond counts. For example, they can give a bottling plant the ability to halt labeling the instant a nearby sensor detects a faulty label or incorrect glue temperature. Moreover, edge gateways enable IoT deployments that save costs by communicating data in intervals or batches instead of in a constant stream.

relayr also relies on a broad array of Intel® processors, technologies, and software to optimize performance, availability, and security throughout its data centers.

5-4-3 Innovation Acceleration

relayr’s unique 5-4-3 Innovation Acceleration methodology is designed to help businesses and organizations rapidly progress from concept to full IoT rollout within one business quarter. The 5-4-3 approach helps enterprises manage and speed up their IoT transformations with end-to-end support in short, focused stages:

5 Days: Kickstart

relayr IoT experts guide clients through the process of developing their own IoT solutions using the relayr toolset. It starts with five days of foundational preparation and a kickstart workshop designed to profile, map, analyze, prioritize, and determine the feasibility of ideas—resulting in three leading ideas to move toward proof of concept.

4 Weeks: Accelerate

Four work weeks are devoted to developing a working prototype, prototype testing, and creating a scope of work for the traction phase. The prototype focuses on one use case—all the way from making a digital footprint of an existing or new asset, including retrofitting with sensors, custom connectors, and visualizations—and basic integration with an existing ERP/CRM/BMS system.

3 Months: Traction

Three months of intensive development efforts, including implementation of connectors, full testing, dashboard setup, and sensor consumption package definition.

Launch: Full IoT Rollout

The process concludes with a step-by-step rollout of the IoT solution to relevant areas of the business.

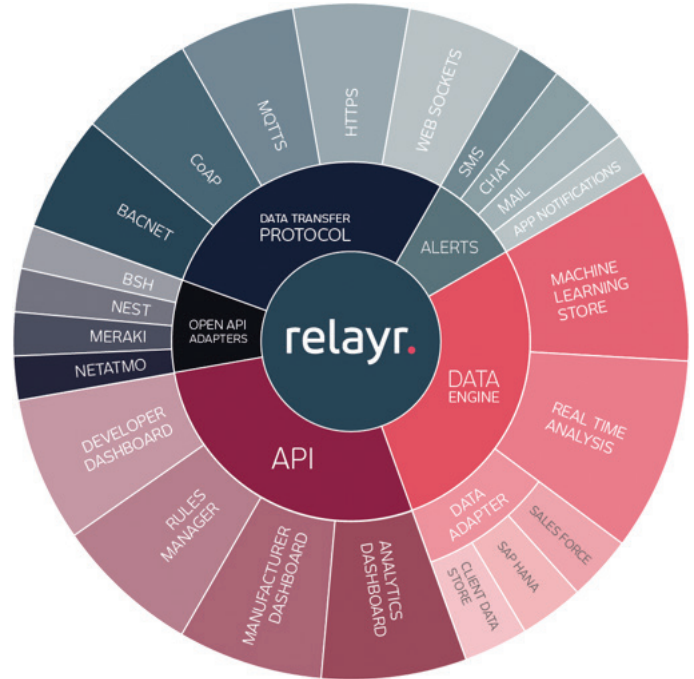


Figure 1. relayr enterprise middleware

Use Cases

relayr focuses exclusively on B2B and Industrial IoT deployments with solutions and systems across a broad range of verticals, including:

- Smart cities
- Smart buildings
- Predictive maintenance
- Manufacturing
- Retail
- Connected stadiums
- Automotive
- Hospitality
- Insurance
- Healthcare
- Oil and gas

Recent deployments include the new Minnesota Vikings football stadium in Minneapolis, Minnesota. This state-of-the-art complex builds in a large number of connected sensors, equipment, and other innovations—from the concession stands to executive suites—designed and deployed by relayr to help team management improve business operations and deliver outstanding fan experiences.

relayr also partnered with Intel and Cisco to develop the Digital Ceiling in Cisco's openBerlin Innovation Center. This IoT solution integrates multiple sensors to seamlessly monitor, control, and enhance a wide range of environmental, security, energy usage, and communication functions within the building—from lighting and temperature to wireless and visual light communications.

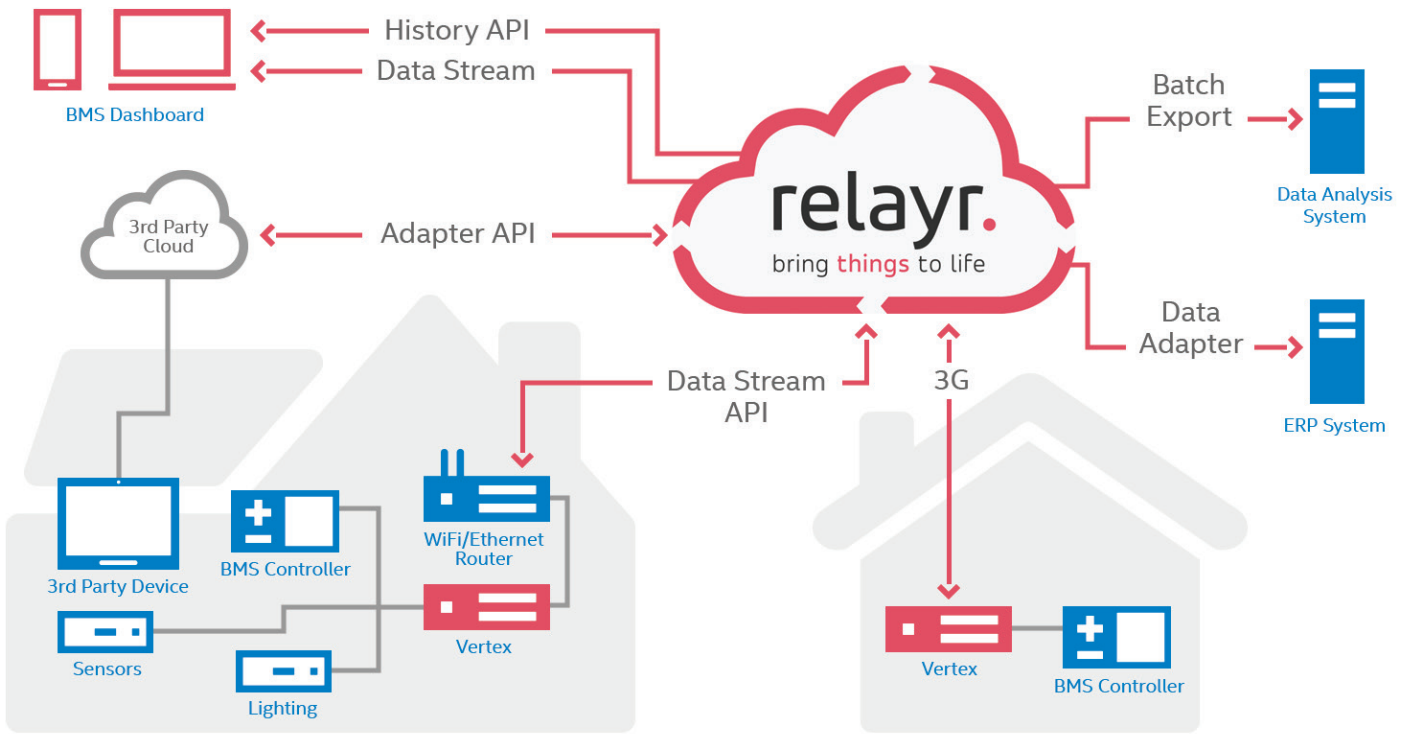


Figure 2. relayr smart building architecture

Conclusion

The IoT landscape is filled with a fragmented array of services, software, hardware, protocols, and management systems. The technology-agnostic relayr cloud middleware platform allows any-to-any connections for devices, equipment, protocols, software, and services—helping companies simplify the complexity involved with connecting legacy assets to the cloud and accelerating their transformation to an IoT-enabled future.

About relayr

Global IoT startup relayr was founded by experienced technology entrepreneurs and senior executives from successful B2B startups with the goals of building interoperability into the cloud layer, connecting different devices from different manufacturers, and providing the software for building new solutions across any device and any thing. The company currently employs more than 80 passionate people representing 28 nationalities and 10 languages from around the globe.

The relayr Powered Partner Program brings together industry-leading companies involved in all aspects of Industrial IoT to offer customers the right technologies and expertise to help them through their digital transformation journeys.

Learn more: <http://relayr.io>

IoT starts with Intel Inside®

Partnering with industry leaders such as relayr, Intel is helping to streamline and simplify how innovative businesses, cities, and organizations develop smart IoT solutions for an increasingly interconnected world. From the scalable compute power of Intel® Quark™ SoC, Intel® Atom™ processors, and Intel® Core™ processors to Intel®-based Smart Home Gateways, Intel delivers the foundational, end-to-end technologies that let you connect, secure, and manage valuable data so that you can get even more from IoT.

Learn more: intel.com/iot

