

Leading Utilities Optimize Customer Engagement with Smart Homes

The Intel® home automation gateway paired with Alarm.com's holistic IoT platform integrate smart home devices beyond the meter to security cameras, door locks, lights, thermostats, and more

This solution brief describes how to solve business challenges through investment in innovative technologies.

If you are responsible for...

- **Business strategy:**
You will better understand how a smart home solution to benefit utilities will enable you to successfully meet your business outcomes.
- **Technology decisions:**
You will learn how a smart home solution to benefit utilities works to deliver IT and business value.

Executive Summary

Utility providers continuously seek ways to engage existing customers in order to improve customer service and energy efficiency, better forecast usage, and optimize their grids. But too few utility customers perceive energy savings as a compelling enough reason to take advantage of these offers. Smart home customers, however, are easy to engage. They find it simple and delightful to be involved in every aspect of managing their houses through a wide range of integrated smart home devices.

Utilities can become an integral part of the smart home experience by partnering with smart home solution providers such as Alarm.com. The Intel® home automation gateway and Alarm.com's software platform help customers connect smart technology including doorbell cameras, door locks, security devices, motion sensors, lighting, thermostats, and smart meters, as well as other functions and settings, using a single, user-friendly application.

Utility providers are rewarded with actionable business insights through data collection and analysis that lead to increased revenue, decreased cost, better customer education, and customer retention. Better still, these benefits go beyond individual customer insights; they can provide municipal and regional usage patterns leading to the creation of more targeted incentive programs and offerings that attain higher levels of engagement.

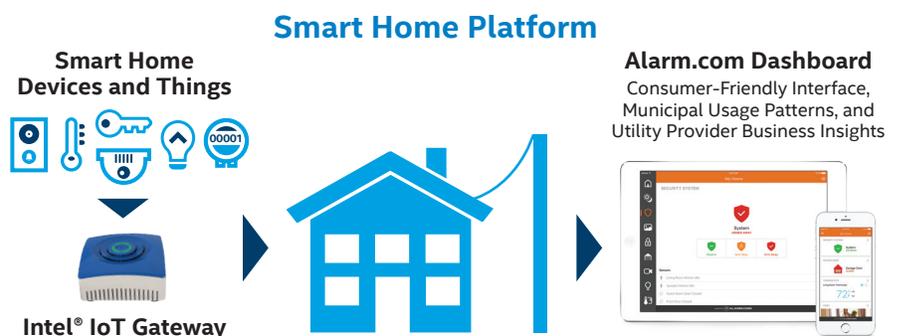


Figure 1. Integrated smart home devices provide customers with one seamless experience for controlling every aspect of their homes.

Solution Benefits

- **Maximize revenue.** Intel and Alarm.com help utility providers expand offerings and services to smart home customers.
- **Reduce cost.** Aggregated smart home data improves energy forecasting and grid optimization.
- **Improve customer education.** Customers become energy aware and modify behavior patterns.
- **Increase customer service.** Engaging customers increases customer retention and satisfaction without increasing costs.

Business Challenge: Persuade Utility Customers to Sign Up for Programs

Engaging existing customers is a challenge for utility providers nationwide. Customers often do not recognize energy savings as significant enough to justify enrolling and participating in various programs, and utility providers are often not equipped to manage installations inside the home. Smart homes, and the solution providers who connect them, can provide utility companies with a successful entry point. By integrating utilities with a solution already in the home, utilities become an important link in the complete smart home experience.

Smart homes must support multiple services working together in new and intuitive ways in order to anticipate and meet the needs of the homeowner. Increasingly, customers want solutions that provide peace of mind for health and safety, reduce the time spent on repetitive tasks, save money, connect the home to other smart applications, and provide more options for families and individuals. For example, they want to predict when the water heater or heating, ventilation, and cooling (HVAC) systems in their homes need service before they fail.

To accomplish this, smart homes enable utility providers to engage customers inside the home to gain valuable insights for improving efficiency. With customer collaboration, utility providers can better understand load profiles for improved forecasting, and customers can easily take advantage of the most valuable programs and services available through their providers. Utility providers also benefit through a platform that allows for recurring revenue opportunities while reducing the overall cost to serve or compete for customers. The smart home technology discussed in this solution brief delivers that platform.

Utility Automation through Home Security

Consumers want a simple, engaging, integrated experience in everything they do—and home automation is no different. The Internet of Things (IoT) is rapidly growing to accommodate this, and solution providers are connecting

Intel and Alarm.com Improve Security

Alarm.com is a leader in smart home and business services, developing innovative technology that deepens the connection between people and the things they care about most—their homes, families, and businesses. Millions of people trust Alarm.com every day for better security, advanced automation, and dependable service.

Security solutions from Intel are integrated into all layers—from edge devices to the cloud—of Alarm.com's solutions. With Intel's security-focused design, encryption is built into the device enabling stronger data protection through identification, authentication, and authorization.

Alarm.com's technology and cloud services power security and smart solutions including Interactive Security, Energy Management, Video Monitoring, Intelligent Automation, and Wellness. These connect a broad array of smart devices for easy control through a single, intuitive mobile application.

previously unconnected sources and services to better serve their customers. For example, Alarm.com subscribers with Intel gateways can connect additional smart home technology such as doorbell cameras, door locks, garage doors, motion sensors, and smart meters using the Alarm.com smart home platform. Data collected from these devices creates a holistic customer experience in which consumers enjoy increased security, improved communication, and greater energy efficiency in one easy-to-use application.

Using Alarm.com, customers can also create *scenes* to suit their particular lifestyles. For example, they can create a *going to sleep* scene to ensure doors are automatically locked, some lights are turned off as others are turned on, thermostats are turned down, the garage door is secured, and the security alarm is activated. And as new smart devices become available, customers can easily integrate them for greater control and monitoring.

Solution Value: Smart Home Data Transforms Energy Usage

Alarm.com's integrated solutions include an advanced security panel and sensors paired with a mobile application. Their solutions and partnerships deliver a combination of leading technology and proven hardware, and their partner network provides installation services, call center support, and professional monitoring to meet the needs of every utility customer. By integrating with Alarm.com, utility providers can better engage their customers and maintain their brand presence through co-branding, and use the data collected for improved forecasting and grid optimization.

Customers managing their homes and businesses through smart, connected devices are easier to engage in energy savings and optimization. With Alarm.com, utility providers can collaborate with customers to optimize energy-related automation such as lighting, solar, and electric (see Figure 2).

Utility customers benefit through:

- **Energy savings.** Through data collection, utility providers can help customers reduce expenses and conserve energy.
- **Personalized experience.** A single application allows customers to control all aspects of their smart home seamlessly.
- **Demand response incentives.** Some utility providers offer incentives for smart home customers who participate in demand response programs that automatically shut off pre-approved appliances when demand is high.

When utility providers integrate with Intel and Alarm.com, they gain valuable insights through data collection and analysis that lead to actionable business intelligence. For example, smart home data may help utility providers predict which customers are most likely to sign up for solar power or other utility programs. And such analysis extends beyond individual customers; the collective data can provide municipal and regional usage patterns leading to the development of more targeted incentive programs and offerings.

Utility providers benefit through:

- **Maximized revenue.** The Intel and Alarm.com solution allows utility providers to tailor offerings and services to meet individual customers' needs.
- **Reduced operational cost.** Data collected from smart homes helps utility providers better forecast energy needs and optimize their grids.

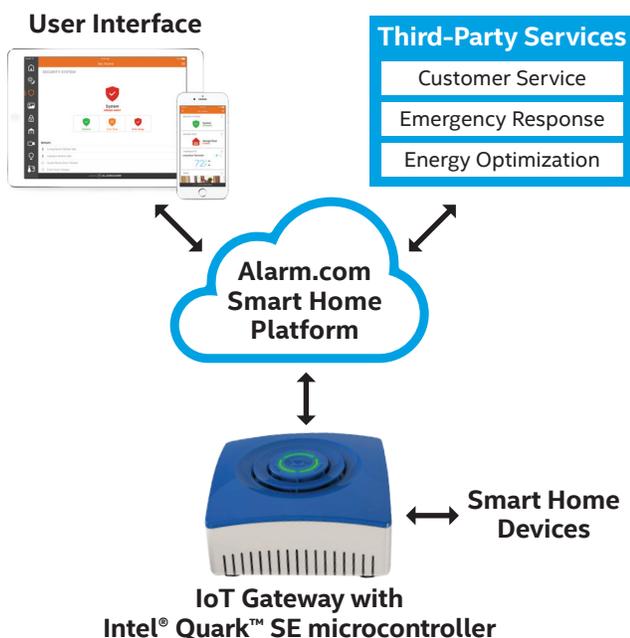


Figure 2. Utility customers are more engaged when all smart home devices are connected on a single, easy-to-use system.

- **Demand response capabilities.** Smart home customers can pre-approve appliances, such as swimming pool heaters, that are automatically turned off when demand is high.
- **Improved customer education.** Through ongoing engagement, customers become more energy-aware and recognize opportunities to optimize, maintain, or repair appliances, such as HVAC systems or hot water heaters.
- **Improved customer service.** In many places customers can choose from multiple utility providers, and engaging these customers through smart solutions increases satisfaction, retention, and acquisition of new customers.

Alarm.com offers analytics for detailed information, such as the model and year of an HVAC system. With this level of specificity, utility providers can assess whether the system is running efficiently and trigger a service call, if needed. Data is shaping the future of smart utilities and is one of the most important benefits of IoT.

Solution Architecture: End-to-End Security Focus

Alarm.com's customizable IoT platform is built with Intel® technology for its security-focused design and outstanding reliability. It is an end-to-end solution based on Intel® Internet of Things Platform products. Alarm.com's smart services platform (see Figure 3) takes advantage of many of Intel's core competencies, such as:

- **Breadth and scale.** Intel's broad product line and world-renowned ecosystem of developers and solution providers are integral to developing an industry-wide horizontal solution.
- **Security and device management.** With Intel's security-focused software applications like McAfee® and Wind River*, the platform provides fundamental, built-in security features.
- **Computing at the edge.** The Intel® Quark™ SE microcontroller is a low-power consumption system-on-chip that provides edge analytics and pattern matching.

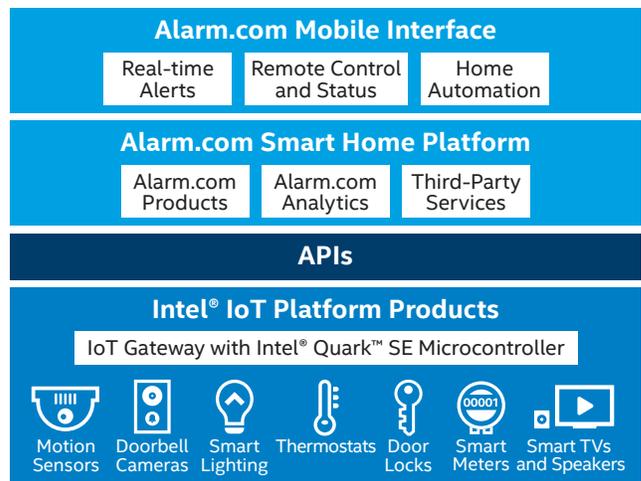


Figure 3. Alarm.com's smart home platform uses Intel® technology for its reliability and security-focused design.

Conclusion

Utility providers need to improve customer service and energy efficiency, better forecast usage, and optimize their grids; however, existing utility customers can be challenging to engage. By connecting with Intel and Alarm.com, and integrating utility offerings on a single smart services platform, utility providers can become a vital part of the holistic home or small business experience.

Smart technology provides utilities with actionable business insights through data analytics that lead to increased revenue, decreased cost, better customer education, and improved customer retention. Alarm.com brings utility providers, partners, and technology together on one compelling and satisfying smart services platform.

Find the solution that is right for your organization. Contact your Intel representative or visit intel.com/smarthome.

Alarm.com Invests in Partner Services

Transitioning to the Internet of Things (IoT) can be daunting, but Alarm.com provides advanced services for helping partners make that transition. In addition to technology, Alarm.com's turn-key solution includes tools and services that can be co-branded and used immediately. Some of these tools include:

- **Success strategy.** The marketing and sales portal includes a library of tools to intelligently target, engage, and increase customers. It also includes a suite of web services and APIs that facilitate data synchronization with strategic partners.
- **Training.** Alarm.com online training solutions include on-demand courses and videos addressing how to sell in the smart solution space, detailed product features, and installation and support information.
- **Business intelligence.** Data is the most important value IoT technology provides. Alarm.com's portal provides comprehensive analytics and customized reports, such as comparative data by region and system profiles.
- **Customizable platform.** Utility providers can customize the platform to meet their specific packages and offerings, as well as prominently display their brand.

Learn More

You may also find the following resources useful:

- [Internet of Things Ecosystem](#)
- [Smart Buildings with the Internet of Things Technology](#)
- [Intel Building Management Platform](#)
- [Event Brief: IoT Solutions for Smarter Buildings and Homes](#)

Solution Provided By:



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