Cybersecurity for consumer IoT devices

Improve the security of your products with our cybersecurity services from strategy through compliance. Incorporate security as a position of quality. Protect your customers. Protect your brand.

The Internet of Things (IoT) offers a new generation of connected products — wearables, security cameras, speakers, cars and even toasters that can communicate with each other with inherent network capability. As more smart features and connections are added, the entire networked system’s security is only as strong as its weakest link.

With a complicated and constantly evolving regulatory landscape and no universal industry security benchmark or consensus on baseline security capabilities, it can be challenging to know if you are applying the necessary measures to protect your customer.

UL Solutions offers consumer device IoT security services designed to support you in every step of your IoT security journey, from initial strategy through formal compliance and product launch.

Did you know?

- Attention to security is crucial throughout the design and development of IoT products.
- Security, like software, is dynamic, and security threats in the IoT landscape are ever-evolving.
- Post-sale, the security of smart products requires active maintenance.

Understand the IoT ecosystem and security measures

The first step on your journey to increase the security of an IoT device is to determine the regional and industry-specific regulatory requirements for your device launch and understand, at a technical level, the implications of those requirements.

To help in this area, we offer access to our cloud-based compliance platform, Global Compliance Management, which contains up-to-date overviews of the regulatory requirements for consumer IoT devices globally. Once the target region for an absolute baseline security requirement is understood, we can support you with in-depth topical training and advisory programs. We offer the Consumer Device IoT Security Masterclass, which provides a basis for the practical and technical knowledge you need throughout your IoT security journey.
Define and execute a road map to compliance

After you have identified the end goal and understand the core concepts of IoT device security, it is time to outline and enact a plan that enables an organized journey to IoT security. We are here to support you every step of the way.

- Are you looking to meet a specific mandate or deadline? Our Consumer Device IoT Scoping Program draws on our years of security compliance expertise to work with you to identify each action required to meet your compliance goals and map out the required timeline and resources.

- Are you concerned with the bigger picture? Do you want to create an action plan to identify necessary compliance, help define a longer-term IoT security policy and map future advances and regulations? Our Consumer Device IoT Strategy Program combines in-depth training and a UL Solutions expert-led series of workshop sessions that will build your confidence and understanding of IoT strategy and prepare you for the future of IoT security.

- Are you completely new to the connected device and IoT world? Our Consumer IoT Jumpstart Program provides in-depth information on the types of security documentation, procedures and best practices you will need to develop. We package it with support from our security experts to help start your IoT journey on the right path.

Should pain points arise at any time during your IoT security journey, our experts are also available to lend assistance via Knowledge Contracts. This service provides you with direct support from the IoT Advisory Team or our fully customized tailored advisory support to address your unique needs.

Demonstrate security and differentiate products

The end of the IoT security journey includes a formal evaluation of each consumer device’s IoT security measures. This evaluation also leverages your hard work and dedication to provide end users with confidence in the security of your device as a differentiating factor on store shelves.

Our UL Verified IoT Device Security Rating program incorporates best practices for IoT security based on emerging industry consensus on baseline security capabilities. The result is a differentiated device security rating and an associated device label. The program assesses devices against one of five security levels, ranging from minimum baseline to more comprehensive security capabilities, providing you with specific security requirements to match your device. Since no two devices are the same, we aim for the correct level of testing rigor for your device.

- Upon successfully completing a security assessment, the evaluated product is awarded the achieved security level — Bronze, Silver, Gold, Platinum or Diamond — displayed through the UL Verified Mark. This Mark can be placed on the product and product packaging and promoted in the physical store or online retail environment.

Are you looking for proof of compliance with a U.S. state law or regional standard for launching in the EU? The UL Verified IoT Device Security Rating program also provides a comprehensive offering for your compliance needs. Formal compliance testing for baseline and/or consumer device IoT regional and ecosystem-specific standards and regulations comes bundled with each device evaluation. Please reach out to your UL Solutions representative for a complete list of standards that can be assessed by our security laboratories worldwide.
Empower consumers
Make product security more transparent and accessible to consumers

Perform security due diligence
Demonstrate that your devices meet minimum security capabilities

Differentiate your products from their competitors
Leverage the IoT Security Rating to achieve security differentiation

Comply with regulations
Stay ahead of regulatory developments and potential security liability

Why UL Solutions for cybersecurity
UL Solutions has deep cybersecurity expertise to help companies across various ecosystems successfully incorporate cybersecurity into their products, systems and processes. Our experts use extensive knowledge of current best practices, real-world experience and independent objectivity to holistically assist companies in reaching their full potential — and making a trusted and seamless connection with the Internet of Everything.

For further information on our consumer device IoT cybersecurity services, visit UL.com/ConsumerIoT.