# BSI IoT Foundation testing

## Introduction

As the number of connected devices grows and our connected ecosystem expands exponentially, so the associated risks concerning security, privacy and safety have become more prevalent. Reports in the media of products from baby monitors to industrial control systems that are vulnerable to hacking can reduce trust and slow down the uptake of the very devices which have the ability to improve our lives. In order to build that trust, it's vital that security is addressed in the connected device's design stage, rather than considered as an afterthought.

The old adage says prevention is better than cure. This is certainly the case for IoT and connected devices. When a device consists of a multitude of components this can bring its own challenges in terms of complexity, time and associated cost, but the financial implications of a security or privacy breach and the reputational damage it can inflict far outweigh these. What's more it's often almost impossible to add security features into a product retrospectively and so potential issues need to be identified early on. This means the need for security by design is a crucial element of the initial design process of a product.

## A perfect storm

Manufacturers who are now adding a connected element to their products work in a dynamic and fast-moving environment where they need to adapt quickly.

Inevitably some key elements of the connectivity are outsourced and this can range from chip sets and firmware to a complete OEM solution. This heavy reliance on the supply chain can lead to potential vulnerabilities in the products. When this is combined with the pressure to launch new products fast it can result in devices, applications and services that contain a sub-optimal set of security characteristics. This is bad news for the end product manufacturer who still owns the risk, especially when a product carries their branding.

## A solution to build resilience

To lay the foundations for a more secure and resilient product once placed on the market, we have created a new solution, the BSI IoT Foundation testing service. It provides OEM's with greater confidence during the initial stages of product development, and for organizations supplying OEMs, it enables them to de-risk and demonstrate entry-level compliance.

**bsi.**

...making excellence a habit.™

## About BSI IoT Foundation testing

BSI IoT Foundation testing provides an initial indication of risks and any remedial actions that must be undertaken to protect devices, applications or cloud services. It also provides an insight into the required improvements for future developments and/or procurements.

By utilizing the BSI IoT Foundation testing service you will:

1. De-risk the product development process

2. Understand the risk you are holding with products already on the market

3. Build trust with consumers and stakeholders

BSI IoT Foundation testing can also serve as the first step towards Kitemark certification, the ultimate mark of trust for your products.

## What does BSI IoT Foundation testing consist of?

The test is quick and straightforward and fixed price. From our experience of testing many IoT products across a wide range of applications, there are some common vulnerabilities we see. Our IoT Foundation test comprises of three key tests to identify these common vulnerabilities:

- An initial assessment against the OWASP IoT Top 10 issues such as passwords and communication encryption

- A check for insecure credentials/sensitive data

- A scan for common software/firmware vulnerabilities

The IoT Foundation test also forms the stage one test of our certification programme, making it both a pragmatic way of assessing risk for your product whilst also providing the first step on the path to certification.

## Is it for my organization?

No matter whether you are an OEM or you supply to OEMs this service is for you.

| If you are an end product manufacturer | If you are part of the OEM supply chain |
|---|---|
| A BSI IoT Foundation test will help mitigate your risk which in turn can help protect your brand.<br><br>It gives the end customer confidence that your product can be trusted. | If you are part of the supply chain a BSI IoT Foundation test will help mitigate your risk.<br><br>You are also signalling to your clients that your IoT solutions is safe to integrate into their product. |

No matter whether it's in development or already on the market a BSI IoT Foundation test is your first step towards ensuring your product is safe, secure and trusted. Once you've completed this step you will be well placed to progress to the next stage with more in-depth testing.

**Find out how BSI IoT Foundation testing can help youto build a more secure and resilient connected ecosystem. Get your quote today.**

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