

My home is my castle

Certified security of smart home devices



Comfort, safety, convenience, or simply the enjoyment of using cutting-edge home technology is boosting the demand for smart home devices. And in fact, consumers, regardless of whether they are owners or tenants, would like to take the plunge more often.

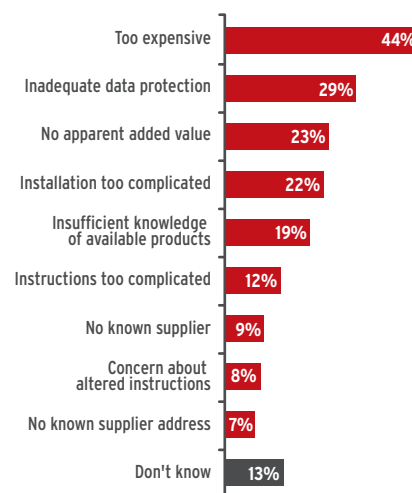
Yet according to the latest studies, there are major impediments holding back the decision to buy smart home devices. Users have huge qualms about the security. True to the motto, „My home is my castle“, potential buyers are concerned about the security of their data, as well as loss of privacy within their own four walls.

Security as a sales feature

What types of data are generated when using smart home devices? Who can gain access to it? Is this data transmitted and stored safely? Is there even a risk of being spied on or hacked at home when using the new technology? Manufacturers have to dispel all these doubts if they are to be allowed into the private lives of critical consumers.

Certified security fosters trust

From the hardware, through all the connected network and online services, right down to the app – the experts of the independent security institute, AV-TEST, put your smart home devices through a complete test. In doing so, the internationally-recognized AV-TEST quality seal gives your product the decisive competitive advantage: customer trust.



Reasons for lack of interest in Smart Home (Source: Deloitte Smart Home Survey)

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Comprehensive tests for product security

The AV-TEST laboratory evaluates every component of a smart home product being a potential target for attacks. The security analysis entails not only data generated by use of smart home products and connected services but also securely transmitting and saving it. In addition, detected potential weaknesses and approaches for attackers will be evaluated under realistic working conditions.

Test according to the state-of-the-art

The following test areas are of special focus in AV-TEST's security analysis:

■ Encrypted communication

The encryption is evaluated when using smart home devices in local networks, from components via Internet as well as firmware updates via the Web. In this, the products are required to prove that they can protect the data, which they themselves generate, from manipulation and theft. Moreover, other data on devices and online services connected to a given smart home device must be safely shielded and protected from unwanted access. It is furthermore evaluated whether control commands from and for networked devices can be transmitted securely in encrypted mode or whether they can be exploited – as in the case with man-in-the-middle attacks.

■ Secure authentication

Reliable protection of security-relevant control components requires effective authentication mechanisms. AV-TEST checks to see whether all the components of a smart home solution – from the device itself, through cloud services, right down to the app – are equipped with appropriate access protection and how effectively it works. What's more, it has to be safeguarded that authentication data can be neither stolen nor manipulated.

■ Defending against outside attacks

Any well-rounded security concept of smart home devices also includes effective defense against hackers from the outside: Can attackers inject malware code via one of the interfaces of the smart home product or pass on infected updates or firmware to the device? In cases such as these, attackers have a firmly-installed back door, leading via the device into the home network.

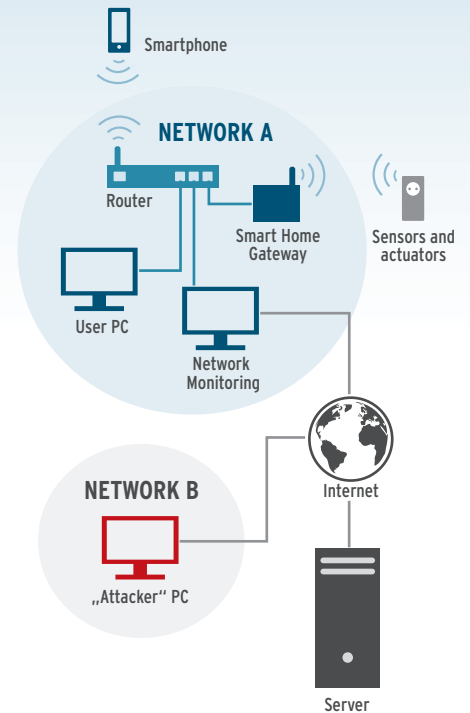
The seal for certified security

A smart home device is required to pass these and many other tests in order to receive a quality seal from AV-TEST. By issuing the seal, the AV-TEST Institute certifies your product as having complied with a high level of security at the time the test was completed. The quality seal can be used by manufacturers as a communication tool, in order to inform customers about the evaluated and certified security of their smart home product.



You can find additional information on our website, or simply get in touch with us directly at +49 391 6075460.

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Schematic test configuration



The AV-TEST certificate stands for compliance with high security standards, measured in terms of the state-of-the-art in the IT security industry.