



Best practice rules for building automation

What matters when designing your smart home

bintellix® combines years of experience mastering complex challenges for a range of customers large and small. Our experts have devised the following best practices for smart home projects – field-tested, timetested, and validated across numerous successful projects.

Manufacturer-independent -

- Don't get locked into one particular manufacturer and their proprietary products. It's better to avoid restrictive, closed systems.

System-wide smart solutions -

- It's a pain to have to grapple with a combination of isolated solutions each with their own app, each requiring individual 'programming' via their own tools, each completely unaware of their neighboring systems and other contextual information.
- ⚠ Invest in system-wide control systems instead for better efficiency, performance, and ease of use.

Redundant sensor networks -

- A central control unit is limited in its expansion capabilities, and potentially error-prone.
- Decentralized and distributed sensor networks, e.g. MQTT, which all smart-home systems have access to, are a much better solution.

Consolidated infrastructure information -

Don't waste time configuring multiple components with more or less the same data over and over again.

Instead, focus on establishing a single consolidated data management system – one that records every component and automatically distributes this information as required.



Security by design -

There's no need to assign individual experts to be in charge of each individual system. Divided like this, each is capable of putting the overarching security concept at risk.

L's better to create a system group of smart agents right from the start – one in which every layer of an OSI model is aware of the rest.

Decentralized function control -

It's astounding how many smart home components only work when actively connected to the internet and a cloud service. What happens when the internet goes down? Or if a manufacturer changes their product design, or a purchased product is taken from market? This can lead to a partial or even systemwide blackout.

Decentralized function control systems are a much safer bet. These are much more reliable and secure for you and your home.

Professional applications -

Don't be fooled by the range of functions you sometimes see on offer. The smart home industry is filled with quick and 'clever' DIY solutions – risky, poorly integrated, and far removed from established and trusted IT standards.

Norms exist for a reason: these established software standards ensure exceptional fault tolerance and high availability for your components. Stick to these instead.

Good design first -

Nobody likes monstrous control panels that make a mess of a building's design while being extremely complicated to operate.

Put your focus on smart, intuitive, and versatile components instead – components that can cover multiple functions as required.

