

Buildings
Simply Made
Better

Patented
Solution

How Does a Cloud Platform Get Into Building Automation?

Achievement of ESG targets, cost savings in operations, and improvements in user satisfaction. All of this is only achievable with tools such as a cloud platform and a comprehensive, structured data set. Today, the necessary data can be collected in particular via building automation systems.

The challenge: Many building automation systems, both in existing and new buildings, are proprietary – i.e., they are equipped with licenses or require manufacturer-specific know-how. This presents a hurdle for aforementioned solutions such as cloud platforms, as they do not connect directly to such systems and cannot process proprietary protocols.

“Everything from a single source” sounds tempting at first, but a closer look reveals the following disadvantages:

- No incentivization of open protocols with few opportunities for third-party vendors. Instead, vertical solutions with vendor-specific field systems.
- Hardly any possibility of independent testing of how well automation systems really work in operation.
- Connecting meters can be associated with major hurdles or high costs – but meters are essential for professional ESG reporting.
- Often, established building automation vendors impose warranty restrictions, if third-party providers connect to the appropriate building automation network. It is a contradiction in terms manufacturers of open, standardized systems want to protect them from access by third parties with such restrictions.

The solution is to follow the concept of „everything from a single source“, but at the same time to **define open interfaces in order to be independent of the manufacturer.**

Which points you should definitely include in your contract:



Used GA protocol BACnet IP standardized according to ISO 16484-5: All setpoints must be available as analog / digital outputs / values with a priority array



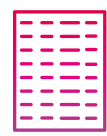
Connection of all data points from stand-alone systems (interfaces must be clarified) to the GA system or use of manufacturer's own platforms with publicly available and publicly documented API interface, ideally with pre-available software-development kits (SDKs)



Connection of all meters (interfaces must be clarified) to BACnet-IP via, for example, MBus or Modbus or third-party providers with open interfaces



Establishment and transfer of a uniform data point identification system, ideally following a recognized rule of technology: Consistent adherence to the data point identification system for all data points



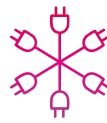
Descriptions for all BACnet objects in human-readable plain text



Use of the standardized BACnet unit system, establishment and transfer of all (TRIC) MSR planning schemes to the revision status



Reference to possible readout of data from the GA network via a gateway (edge device) already before acceptance for monitoring purposes / or announcement of independent data acquisition and evaluation from third party providers. Announcement of the possibility that a digital, superordinate, optimizing control can be used



Star network cabling of all controllers to a central GA switch



On-site internet access in close proximity to the central GA switch

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