



CLOUD HOSTING FOR BUILDING AUTOMATION

As building automation devices become increasingly connected and demand for enterprise level command systems grows, the need for hosting – either on site or in the cloud – is growing too. Many people stick with on-site policies for security and data ownership concerns. But this approach can be capital-intensive and restrictive to scale.

Off-site cloud hosting for building automation can eliminate the need for a network manager or physical server space. But concerns are real, and there are some big questions to ask before making the leap. While there are certainly big names who provide special offers to get you in the door, some personalized attention for your unique building automation needs would help make the transition smoother.

Here are our top questions to ask before choosing a cloud-hosting provider.

1.) Can you process time-series data?

The first thing to understand is that building data is very different from their data. Most hosting companies focus on cloud services for websites.

Web traffic can be unpredictable and sometimes consumes vast amounts of computing capacity. Operational technology or building data is predictable and doesn't take up very much space. However, for building analytics to provide maximum value, data needs to be collected at regular intervals, like every minute. All of this data needs to be stored and accessible in the cloud for predictive analytics and

historic tracking (in case a problem is identified at 9 a.m., users need to be able to see how long the problem has persisted and in what sensors).

Most cloud service providers have not built their server infrastructure to handle this type of time-series data so this is a crucial question to ask.

2.) Do you require dual authentication for access?

Security is the first word on everyone's lips these days. Cloud computing can be incredibly secure if you know what you're signing up for.

Dual authentication is the new industry standard for security. Your cloud service provider should offer this standard.

3.) Do you have multiple redundancies and what are your uptimes?

Redundancy is everything in data centers. To help customers understand their data storage options, the industry has established a tiered ranking system based on uptime and redundancy to increase transparency across the industry.

Tier 4 data centers offer the highest level of uptime and redundancy – 99.999% uptime and 2N+1 redundancy and 26.3 minutes of total downtime allowed per year.

For a sense of how crucial uptime and redundancy are, Tier 1 data centers require 99.671% uptime but no redundancy and 28.8 hours of downtime per year.

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Since building automation data is time-sensitive, the more redundancies the better.

4.) Who owns my data?

The answer to this question cannot be taken for granted. If you go with a big name cloud service provider the answer to who owns your data is likely to be buried in 8 pt. font on page 200 of the service contract. It's best to ask this up front so you can weigh your options in providers.

ZDNet recently explored a variation on this question - do you own your data and have free reign? Their answer: “Maybe.”

They continue: “You own it as long as your technology partner makes it easy for you to access, integrate and innovate. ... The reality is that IT vendors as well as operational technology vendors may control your company's data. Data kumbaya is

all fun and games until there's money to be made.”

The only way to find the answer in your particular case is to ask the question at the outset of your information-gathering on the company you're hoping to engage with your cloud hosting needs. If they're dodgy about the answer, you may want to look elsewhere.

The Buildings IOT Research & Development team is working on new software solutions to old building automation problems.

One key aspect of software success is a good hosting provider. If you have any questions on how to choose the right provider for your building automation needs, contact us through our website - buildingsiot.net.