



The challenge of making existing real estate smart

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THE CHALLENGE



With an increasing focus on achieving a carbon neutral or better position for companies, buildings are part of the focus to reduce energy and carbon.

Most have targeted 2030 as the date to achieve that, I have seen statements as aggressive as end of 2024 with no set plan as to how to get there.



As most of them will be existing buildings a method to analyse and improve the efficiencies of buildings has been our focus for some time, and over the last few years we have developed a method to tackle that issue.

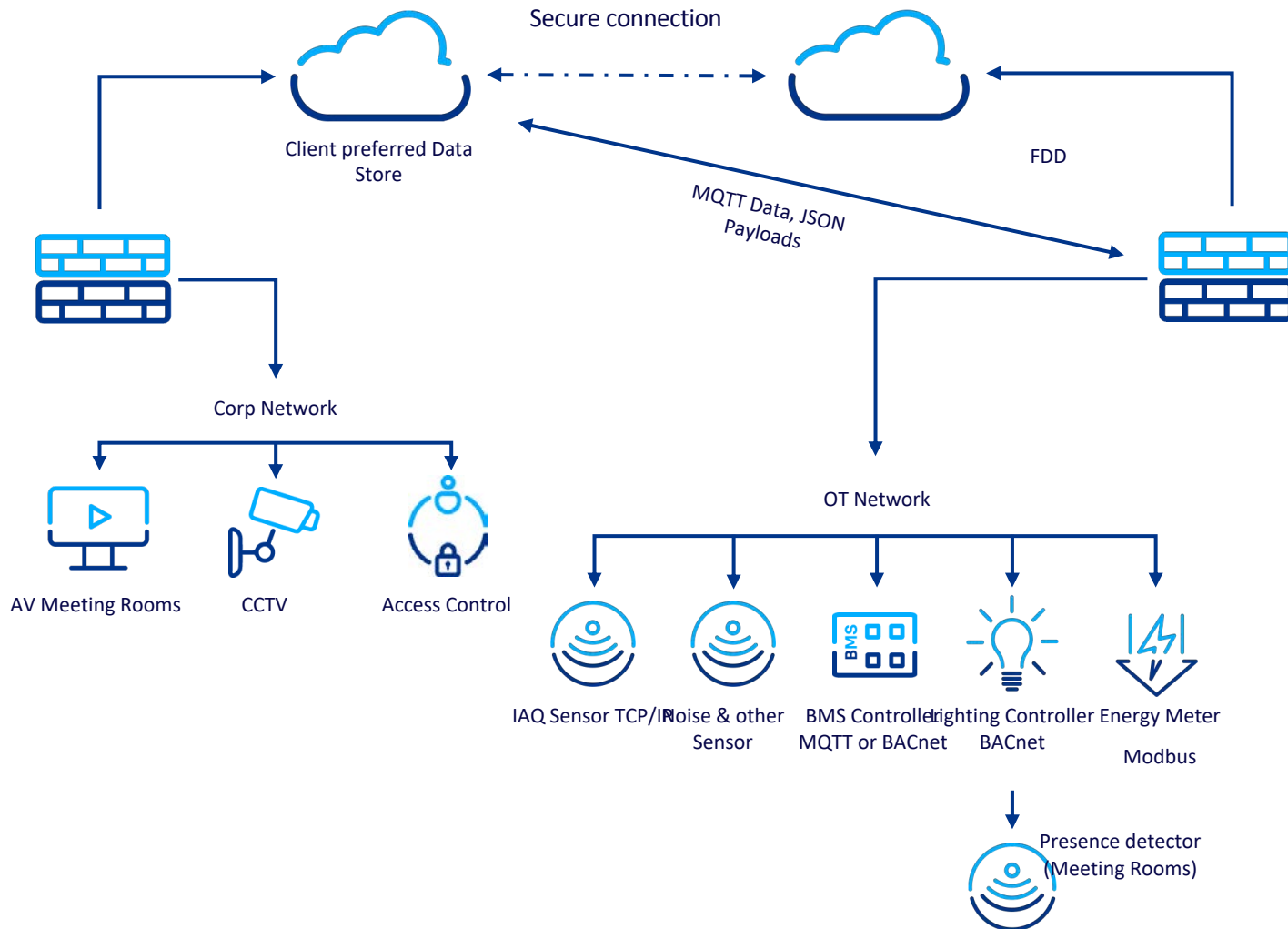
THE REQUIREMENTS



Understand in detail what the building has:

- BMS, Lighting, energy metering, IT equipment, any IOT sensors etc
- Not only the systems but the mechanical design
- Know what data they should be able to provide
- Understand how it was commissioned and changes to that, with today's new work patterns the biggest change is usually levels of occupancy
- Understand any existing integrations
- Know the client's goals

GETTING THE DATA



BASIC REQUIREMENTS

- Systems are on a network, even as a mix of IP and Serial
- Discovery is allowed of the assets and data points
- Map the discovered data to a consistent convention, important if more than one building for a client
- Decide with the client where the data is going, it is the client's data after all and so it should not be locked into a platform. (Often referred to as an independent data layer)
- Detailed data on efficiency & energy use to make provable reductions and strategy choices

MAKING THE DATA USEFUL



The approach that has worked for us is to accept that the data will be in a mixed state and discover as much as possible from common protocols and map that to a standard naming convention whilst at the same time creating a building ontology, this has to be as automated as possible.



The process and some automatic discovery has meant that we can now bring data to a clients preferred cloud or on-premise data storage inside 3 months.

Adding a product to connect to that data is the way forward to provide the next step in automating reporting on improvements and act on that to make changes to the building automatically also.

OUTCOMES

- ✓ Deliver without disturbing the existing setup.
- ✓ Naming conventions can be applied as a translation so any setup can work.
- ✓ Independent Data Layer can be achieved.
- ✓ Proof of carbon & energy strategies & savings can be done per device.
- ✓ If the building has a network, onboarding to client cloud can be highly sped up with good process & tools, 3 months is achievable for buildings in the 200,000, 500,000 sq ft range.

THANK YOU

