

P1 Partner

Name

Person hidden

BMS type

n/a

Country

UK

Segmentation

- **Building portfolio:**
- **Implementation year:**
- **# of connections:** 5
- **Building type(s):** 2

- **Current satisfaction:**
- **Core need:**
- **Security sensitivity:**
- **Type of security sensitivity:**
- **Hodgepodge-ness:**
- **Openness to cloud:**
- **Understanding of cloud:**
- **Desired level of offloading:**
- **Decision-making:**
- **IT versus Ops:**
- **Cost sensitivity:**

Key Takeaways

-

Notes

Could you briefly introduce yourself?



Currently working with data centers. But his previous experience is more relevant to our topic.

Bio: Role and Res... 25

Worked for Sauter Automation for 14 years, where he did BMS commissioning. Then worked on the consultancy side.

Has recently branched out in "Smart Buildings". They have tried to implement smart building solutions that interface with lifts, etc. And also provide tenants and building management with apps.

He wonders if a cloud solution would be better for a specific customer.

They almost ended up with a mini server in each department. These were private apartments but managed by a single landlord. He wonders if we could deliver something that would make the tenant feel like a service is provided.

And does it matter if these servers are on Prem or on the cloud or it doesn't matter?

Key Decision Mak... 51

Who's the decision maker?

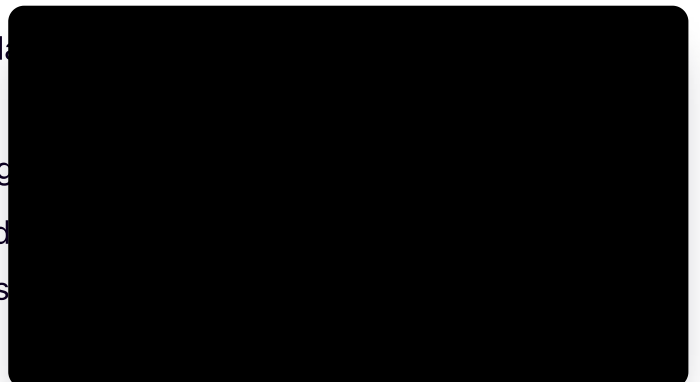
It would be the landlord. But they are advised by consultants (such as them). A landlord might not understand the issues tenants might have.

Tenants in commer... 2

Gain 761

But there could be something on the residential side.

- On the commercial building side. Often tenants want to have their own system.
- They might want SE and realize that the building works on Honeywell. In that scenario, it might be difficult to have 30 BMS servers for a building with 30 floors. There might be a solution if we don't need a server for each floor.
- If the building is not managed by the landlord, we might have issues with: "why do they have access to our information"?
- Issue with server being on-premise for tenants: Is it their responsibility that as part of their kit.
- Then who pays for its maintenance? Who's doing the maintenance?
- The tenant is completely in the hands of the landlord. If anything's happening, whereas if they have a server...



you for perhaps a cloud solution, they know what they're getting because that's what's in their agreed TS&C's.

- If the landlord turns around and says: "Oh the BMS has gone down, you can't see your floor anymore". There might be scope for servicing that tenant from a cloud platform rather than a landlord computer.

What about large buildings being cloud-hosted?

Main reason to have something cloud-hosted is to not have the hardware cost of the server on site. Potentially that cost could be shared with several sites and therefore keep the cost down.

At the end of the day, if only the visualization is on the cloud and the local control is there. There is still things that happen locally, there is not single point of failure.

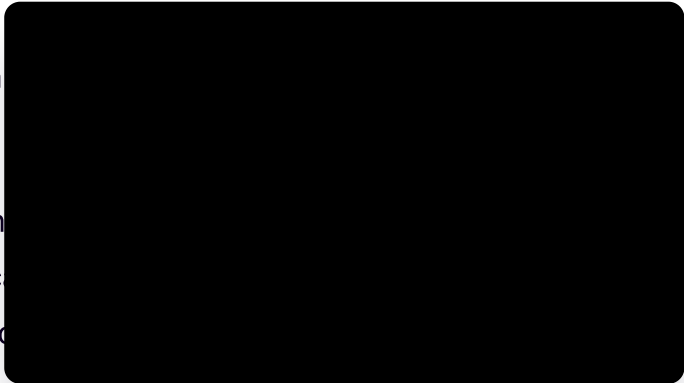
"And you're not relying on a server to process things through. One of the other things just to add to that is I'm finding particularly in the smart building space, that there's more and more third party systems that are trying to plug in."

"If you've got something simple even like a fan coil unit in a room and you've got a lighting system interface, it's picking up on the PIR (a sensor). If there's no action within a room for X amount of minutes, the family unit can drop back to set back. Well, to transfer that signal out to a cloud and back again seems very silly and for me that's cause and effect. That's something that's something happens on one system which has a reaction on another. I think that should be localized."

It's more of a comfort thing. As people become more accepting of relying on IT connection, to and from the site and the cause and effect of going via the cloud. But today, something to be said about having things happening on site.

To be critical of SE, it's all considered to be their own put together and make work.

There is often other companies. And they only got an that's it. If that can be pulled back into the site, you c on site to pull that information in or it can be in the cl



When we talk about cloud or MQTT integration, that cannot be at top level only. There has to be different levels at which this should be able to integrate?

"If something's got a cause and effect associated with it, then it needs to be pitched at the right level."

Market Trends 78

A lot of clients would be saying, if we pulled our cloud connectivity, would this building still work?

The visualization: if they can't look at graphics if it's on the cloud, that not a show stopper.

But the if there's a cause and effect action that's not happening, then potentially that is more of a problem.

"When we're talking about graphics now it's whether they're hosted from an as whether they're hosted from a graphic server, whether that graphic server would be cloud based or whether there be site based. And it's just I think that's the kind of issues that you will get"

It's almost as if do it with a smaller site to start off with and and push the concept of the cost save on not having to pay.

If you try to do these things to larger buildings: Do it with a smaller site to start off and push the concept of the cost save of not having to pay lots of money for the server for quite a small installation. "For me that would be the way to market it".

Cybersecurity 32

Drawbacks of Clo... 35

Can cybersecurity be a driver?

"Yeah, it can probably be"

Some sites are completely isolated, they don't have internet connectivity.

They don't have anything. But if there is a critical alarm...
So you end up hanging an SMS SIM setup so that it can...
they don't realize the benefits of what you can get from...
cloud.

"It's a little bit like having your smartphones. You go...
to accept Google's T&Cs that gives access to ever...

It's a little bit like that for landlords. Are they ready to give that data to somebody? Despite the clauses that say that they own the data. They're still potentially opening the door to the whole cybersecurity concerns as well.

There is people that need to be convinced on when those things are updated. How does it go about doing this upgrade? Especially for critical assets like PLC or chillers.

Integration 12

"It's the way in which those firmware upgrades, let's say are happening behind the scenes to not have an impact on everything's operation"

"As a sales side of thing, it would mean that your cybersecurity will be 100% protected as far as as far as possible."

How important is cybersecurity for normal commercial buildings?

For most of the jobs that they're doing for commercial offices, they would be concerned about cybersecurity. BMS chances of being hacked used to be fairly minimal (no IP).

Now everything is IP. We're trying to converge systems on a converged networks (lighting, security, CCTV, etc.)

Also, landlords providing systems to tenants are also feeling the pressure. They are answerable to their tenants.

What systems can be integrated?

Lighting, chiller packages, security (more minor), access control (with phones eventually), EMS.

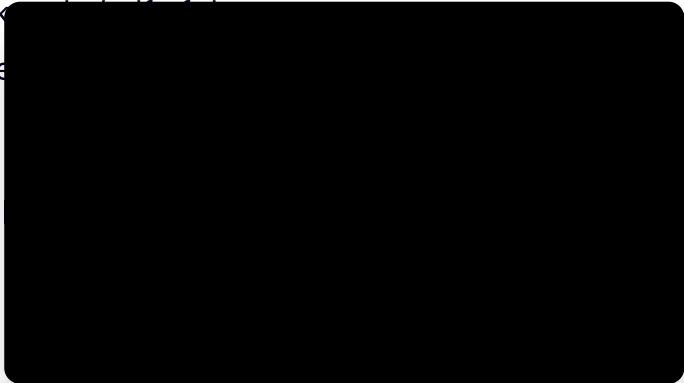
PMS would be the last one that you try to converge.

Who is managing the BMS?

FM agent like JLL for larger buildings that would work with the landlord. From there, they would then push out the service to normally a Schneider Schneider systems house.

And that that would be the way that we would typically

What about smaller buildings?



That is where some of the problem lies. If a landlord has JLL and a tenant has CBRE, with the cross connection of responsibility, who's got access to what data.

Expects something similar with smaller sites (e.g. as school). You typically end up with a Facility Management company and there might be an onsite person. They're getting away from changing differential pressure switches that have gone faulty and things like that. At that point you would be calling a BMS Specialist anyway.

What about on-site versus off-site?

We're now talking about maintenance contracts. What's part of their maintenance contract, what emergency call out period they've got in place and things like that.

"Obviously things like data centers, you've got 24/7 people there all the time. Then if you work down to some of the high end Canary Wharf office blocks, you might have 50 floor office block. They would generally have someone there all the time. But then as you scale down, you'd have less attendance. There might be a once a day attendance down to once a week to down to once a month down to a couple of visits a year. "

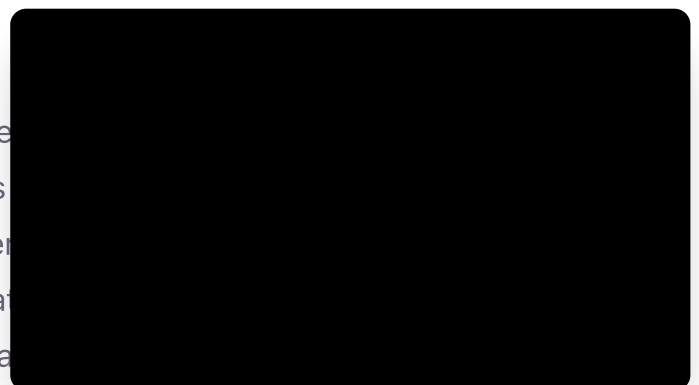
Quite often, the managing agent, they want the absolute bare minimum contract that stops things from failing but don't necessarily want to comply with the FM maintenance document everyone tries to comply with (the standard requirements for maintenance called SFG 20). It tells you that a pump needs to be checked every three months for instance.

Benefits of Clou... 137

With analytics, you can in theory throw away that compliance document because the system tells you when an equipment is going to fail.

There's still some way to go to convince maybe some of the maintenance companies that that's the best thing to do.

Everywhere at the moment do not comply with the requirements of SFG 20, which is really just a list of when things need to be maintained and if someone's providing the maintenance and can't comply with SFG 20, then I would argue what's the market? But they're having to not comply because



be undercut by somebody that isn't meeting it. I think if you flip that on its head and look at your solution by being led to what needs to be changed, they'll still be some kind of a metric for how often are we gonna need as a maintenance company? How often are we gonna need to get to site to sort out a problem?

Landlords 1

Because if your system can throw something up once a day, then they're gonna need daily visits. If we ignore all that and we go by SFG 20, we attend once a month. So there's that whole sort of trade off, isn't there?

If you can demonstrate that you need less maintenance engineers on site and you can manage it better in the cloud, then yeah, OK. That is another factor.

Is integration with work order systems something that can be looked at?

We do say in our specifications, there needs to be an interface to FM platforms and we probably don't push it enough.

It's because we've already kind of done our bit and cleared off site before the final maintenance contractor is there and and puts in their system.

Mentioned TwinView, a digital twin product that effectively run their own maintenance platform as as part of the whole BMS.

It's kind of an extended BMS with 3D modeling and it will tell you when something was last maintained. It's quite a good system.

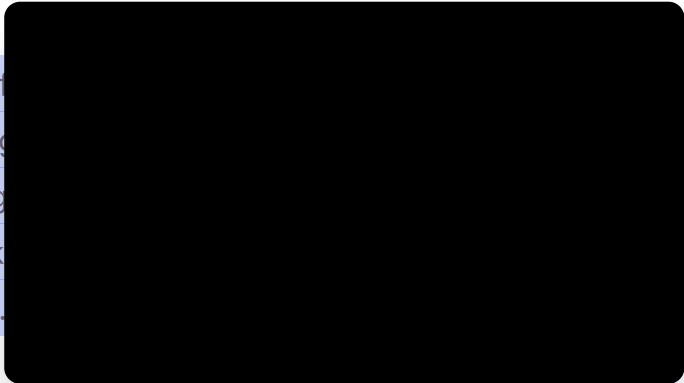
Benefits of Clou... 137

Cost Reduction 14

Is there a scenario where landlords and/or tenants would want it hosted in their cloud or can we as SE host it in our cloud and send the information to them?

They haven't come across landlord that would object to SE having it hosted in our cloud.

If you started talking to someone like British Land for their own ideas and you know they want everything. That said, there's nothing to stop you from making through, you know, MQTT queries. From your broker things say there's that data exchange can happen.



Key thing to avoid: Scenario where BIM Tech was doing 3D digital twins, and they had Smart Spaces providing an app for the building's users and the two companies being competitors, wouldn't share information. So they had a doubling of information in the cloud.

There was a BIM Tech cloud and a Smart Spaces cloud that never talked to each other. It was a complete duplicate of the information of the building which seems ludicrous.

Thought about having an IT broker, which wasn't the digital twin installer or app installer. Have someone that removed a step and provided a service. They're just providing the cloud space ad that way you can tell the people that are using this information: "you're using this cloud, you're not talking to the site. We're not going to allow you to talk to the site. You need to talk to our cloud because this is where the data is coming from"

Market Trends 78

Cloud-based features

The main overriding one every-time is cost.

If you can demonstrate that if we provide it cloud based, you'll get additional updates. You won't even get involved in the updates cause we'll be doing it in the cloud anyway. It's demonstrating then the cost save to the client and any perhaps additional analytics that they wouldn't be getting if it was based on site.

Interest in analytics

Along the smart side of things, it's like office utilization, disk utilization and things like that.

All analytics around air quality with Covid.

Most overriding factor of all is reducing energy, they all want to have a carbon neutral building, demonstrate that they carbon footprint is being reduced by what they are doing on site.

Everyone would be interested in analytics to varying e

Smaller sites might have 5 or 6 metrics they're interested in. Larger sites, there might be hundreds or thousands.



It's a little bit like a smart buildings with a use case. You're dragging all of this data in and right here, right now, you might not have a reason for. You might have a reason to interface your security system with your BMS. But in a year's time, someone might dream up something. That if this door opens, I want to do XYZ on the BMS. So the whole idea of this use case is that it's blue sky thinking, isn't it? It's not necessarily something that we thought of yet.

Are there competitors that provide complete solutions (not stitched systems)?

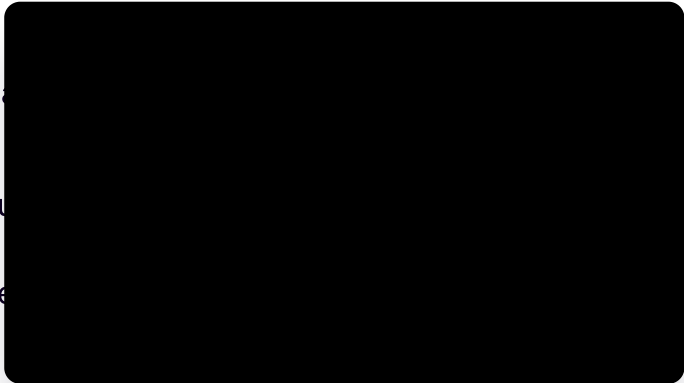
Yes, there is that available already. It's just getting people to realize that that's something that they want or not.

Sometimes the BMS is a small element of that. People like Smart Spaces who are really an IT company, they will literally plug into a building and try to give you analytics. You could argue that a lot of the BMS companies are behind the times in bringing these types of products.

I did find that this this was quite prominent when EMS's were first sort of introduced and they were quite popular. There was lots of little EMS energy metering companies that are popping up left, right and center and the BMS companies were just sitting there going well. We're logging all the values we're showing them on a graph.

And they kind of got left behind because these energy management companies, they were literally producing graphs, analytics, they were doing tenant billing and and they really got right in front of all the BMS companies because they were able to produce useful information to the end user and it all of the BMS companies, I think missed that and some of them are kind of picking up on that now and providing a little bit more valuable information to them. But I can see the same thing happening here with cloud analytics.

It's crazy how some IT companies work. They've got just plug in their IP network to the site to create their servers and they're extracting all the data from the bu
They're charging a fortune to present that back to the them what's in their building.



Would people appreciate BMS moving to the cloud or are they ok with BMS staying where it is?

I think they would, but I think they would have to understand the process because if you walked up to a landlord and you said all your BMS can be in the cloud, they'd turn around and say, well, what does that mean to me?

Unless we can demonstrate the potential cost saving, that makes people sit up and think about what we're saying.

If we can push as many key positives out of doing that move, then the landlord is going to turnaround and say: "Ok, you've got a point there. That would be great. I want to get to that point".

And you gotta be competing against everybody else is sales pitch who's also trying to extract data and trying to give their own offerings as well. It's the over and above extra that you can do things like your firmware updates that that's the value on top of what they can already do.

What's a fortune?

I don't if I can quantify it in terms of real cost, but they're they're taking the data from the building, they're consolidating it, they're running analytics and they're producing graphs. So say it's the desk usage. If you've got sensors around all your desk, that tells you how many people are at your desks, all that data is going back up to their cloud platform. They can then produce something that tells the landlords: "I've got 20% occupancy of this floor". But they're they're charging for a subscription. They're charging for point by point. I mean, one of the people that we're talking about here was charging a a like a lease cost or subscription cost for a desk sensor of something like £180 a year. And that was per desk per sensor.

So we know that we can buy a sensor for £60 or £70 or £80 and it's exactly the same thing. We could connect it into a cloud platform and actually all of that cost, that supposed subscription cost, is in our back pocket.

That's where you could come in and you could undercut them because they are selling their data back. They're selling you

just in a in a presented format.

Is a subscription model ok for customers?

I think they're OK with that, but that's probably on the basis of looking at a landlord with a tenanted building. If the landlord can charge that back to the tenants. Then he's not really gonna care about that cost. If it's a cost, which he's not gonna be able to push back to his tenant, then at that point, he's gonna start tightening the purse strings.

Using the idea of smart is probably the most scary for landlords at the moment because they're thinking, you know, do I need to spend £1,000,000 on my building 5,000,000 pounds, £10 million on my building? And how much is it gonna cost me a year to keep this smart building running?

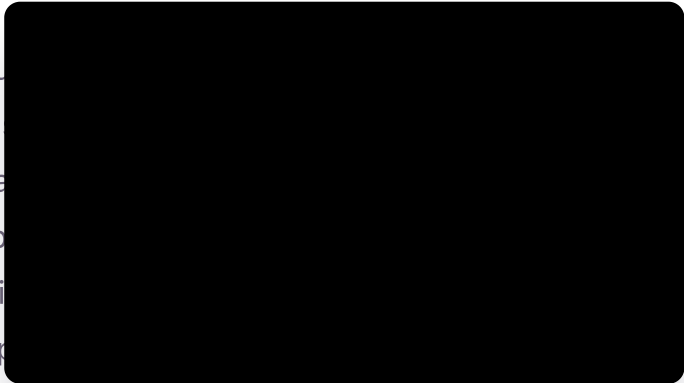
I mean, we've already seen it with like a Niagara solution with Tridium licenses and things like that. Lots of people always say, oh, what's the crack with these licenses? I'm going to be spending an absolute fortune.

People start panicking about that and it's really getting your financial people that have got to accept those ongoing costs and think that's a normal process.

If it's sold in the right way: People understand what they're getting for that subscription, then people are happier with that. And I suppose that the best thing to try and sell a subscription on is the back of cybersecurity and updates, because then people can relate to that. People have got a computer in front of them that's got windows on it.

Would landlords want to outsource a system upgrade?

It depends on whether it's a a routine, a firmware update or a complete consultancy would be involved if it's equipment is X amount of years old, we might do a establish which controllers need changing which p what's equipment for each end of life. That might i mechanical equipment as well. But BMS could be p



It would be a proper project that's created for that and it would go out to tender and then potentially the incumbent BMS company.

EBO example: If the software is out of date, and the client is aware of that, they would go to their incumbent BMS supplier. And they would say: "can we have this as a sort of a one off upgrade?". So ideally that would be included in the maintenance cost.

Really, there's no reason why it shouldn't be.

What about alarm monitoring?

Alarm monitoring? Whether it can be outsourced would depend on the size of the building.

For large buildings, not necessarily outsourced because they've got guys on site. If there is alarming, the alarm routing would typically go to the FM company.

It's just really how it's packaged together. All of these things are all additional costs and we can package up something that takes all of those individual costs and puts it into one package.

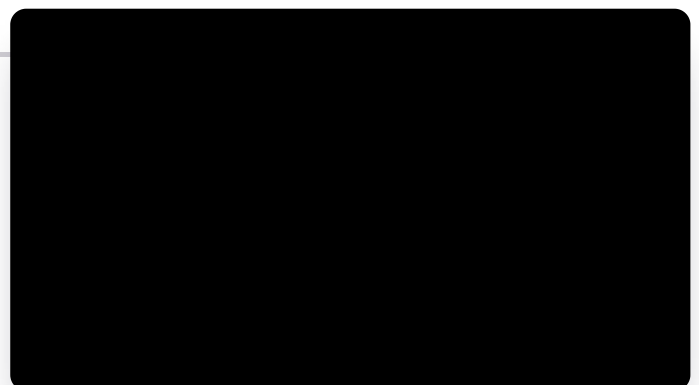
Would it put us in competition with FM companies?

It depends how we sell it. You don't want to be the ones that show up on site. Your SaaS is how you'll make money.

Scratch Pad

Heading 3

Recording & Transcript





Transcript

Was this transcription accurate?



RS Rishupreet Singh ▶ 0:00

Good. One more question and I know that, uh. For the. OK, I don't like transcript feature, but I know that we have been of you just explained that how this can be used. But what I'm necessarily hear from that is that. Probably the there has to be a common place, a server that we are talking about. The master server will be with with the landlord and then we have like many servers or a smaller servers for each of the tenant, right?

P P1 ▶ 0:31

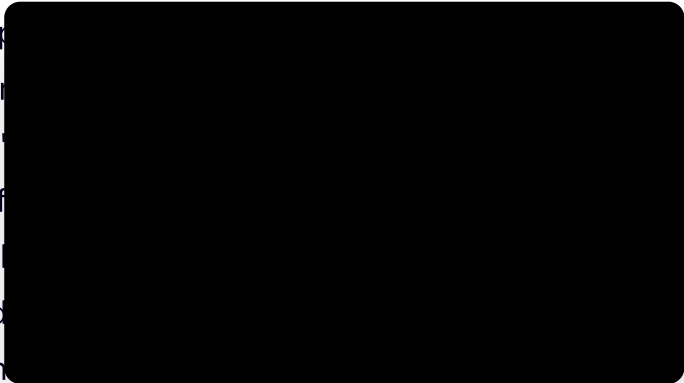
Yeah.

RS Rishupreet Singh ▶ 0:32

And does it matter if these servers are on Prem or on the cloud or it doesn't matter?

P P1 ▶ 0:36

And I think the I think the issue with it being on Prem for a tenant is the landlord consider it as his kit. And he he who then p of it, who's then doing the backups for it. The tena hands of the landlord to make sure that everything whereas if they have a separate contract with you f solution, they know what they're getting because t agreed TS&C's. So if the landlord turns around and has gone down, sorry you can't see your floor anyn



setting, I think it what what have you done so there there might be scope for. And say service in that tenant from a from a cloud platform rather than from a landlord computer that that was really what I was trying to. Highlight.

RS Rishupreet Singh ▶ 1:27

OK, cool. Cool, cool. And one more question and a little bit. Let.

P P1 ▶ 1:37

Umm.

RS Rishupreet Singh ▶ 1:37

To go with the conversation, but I just wanted to get it out of the way when you say.

P P1 ▶ 1:45

Yeah. And.

RS Rishupreet Singh ▶ 1:56

Uh, we started this conversation and you mentioned that you gave a lot of emphasis on small building, right. And I assume that was coming from the context of the meeting that you had, was that we are going for a cloud based solution, but do you see that these actually cloud based solution can be used in the larger buildings also like it's just hosting it, right? Where are we hosting the?

P P1 ▶ 1:59

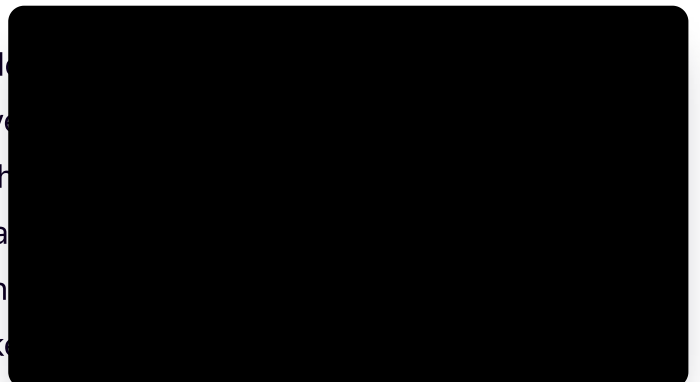
Yeah. I mean, yeah, I suppose the the reason for saying that is I would.

RS Rishupreet Singh ▶ 2:20

Yes.

P P1 ▶ 2:20

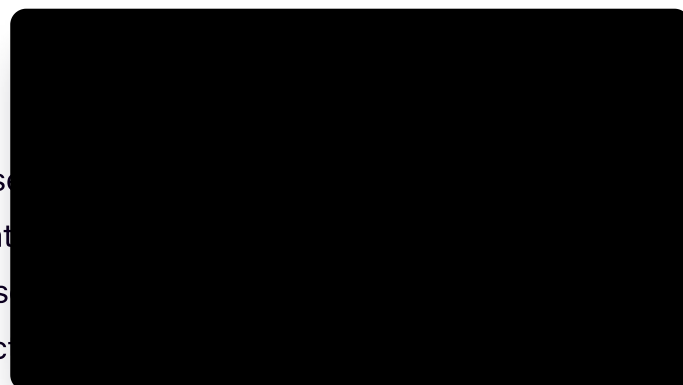
I would think the main reason to have something cloud based is that you don't have to have the hardware cost of a server. And potentially that hardware cost could be shared with other tenants perhaps and therefore keep the cost down that that was what I understood the start of this conversation. But yeah, I'm not going to stop something. I'm normally. Being. Like



being cloud hosted, I think that I mean at the end of the day BMS at the head end is visualization only. So in that respect, there's still that local control. There's still, you know, things that happen locally. So it's there's not a single point of failure. And and you're not relying on a server to process things through. I think one of the other things just to add to that is I'm finding particularly in the smart building space, that there's more and more third party systems that are trying to plug in. So where is perhaps you would have had? I'm a connection to a chiller that might be a modbus connection into a BMS controller, and nowadays there's more call for perhaps having MQTT data going straight to straight from one system to another, perhaps on site. Some of that is obviously cloud based, but the stuff that's part of A cause and effect type action. And I think that. Paper made in particular, I always say if something. So if you've got something simple even like a a fan coil unit in a room and you've got a lighting system interface, it's picking up on the PIR. If there's no action within a room for X amount of minutes, the fan coil unit can drop back to set back. Well, to transfer that signal. Out to a cloud and back again seems very silly and for me that's that's cause and effect. That's something that's something happens on one system which has a reaction on another. I think that should be localized. So if it's MQTT as technology is moving on with with finding, there's more and more MQTT. And towards the field level. And therefore potentially a fan coil unit can talk directly to a PIR sensor and in the field, and if that cloud connectivity was ditched, you could still talk and communicate. I think that we've got a little way to go before people are in a position where they're happy to have a cause and effect or maybe a heating demand signal going via a cloud to then come back to that same building again. So I think it's more of a comfort, I think as people begin to. Be a bit more accepting to rely on it connections to and from site and the cause and effect of going via the cloud. Then maybe things will start to change, but I think at the moment there's there's something to be said for having things happening on site.

RS Rishupreet Singh ▶ 5:13

OK, let's let's try to clarify. When we say cloud based mean cloud hosted system. So for me the loop that be closed loop or open loop where we have a PIR sensor plan called unit. We have. If I talk about our product



the room and we have RPC with the fan coil and you know there is this constant communication when we say cloud based cloud hosted that will be done at as level. So basically as is still an aggregation layer so anything below as.

P P1 ▶ 5:53

Yeah.

RS Rishupreet Singh ▶ 5:53

Is happening local and EBO, which is hosted in the air, it's only at that point of time that evil is hosted in the cloud, so anything below that there is no point sending something else. You're absolutely right that PIR signal is not first going to.

P P1 ▶ 6:15

Yeah.

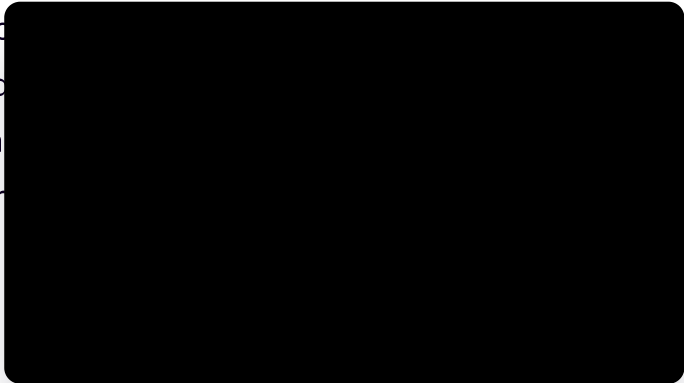
RS Rishupreet Singh ▶ 6:15

In the cloud and then coming back, so anything local is local, anything below AMS is local AMS and above I would say when we talk about a as we talk about a EBO, we talk about ES. So that is the layer that goes in the cloud below that everything stays local. Do you think that works?

P P1 ▶ 6:16

And yeah, yeah, it does. And and just to be critical on that as well. And I think sometimes. And let's say Schneider thinking the way they are, it's all considered to be their own kit that they're trying to put together and make work. I'm just thinking outside of the box as well. There's there's quite often other companies that is not Schneider Kit, it's other into and and they've only got like an MQTT interface and that's it. So it's just that can be pulled back into site and you can have a what do they call it an MQTT broker on site to pull that information in or it can be in the cloud, but it's just. Your structure may be if we looked at c
topologies, you'd show all your Schneider kit would
downstream of an IS. But when we're talking perha
piece of kit that that might come back into an as or
come in a different route. So it's just being mindful

RS Rishupreet Singh ▶ 7:13



So basically you're saying that we are when we talk about the cloud integration or MQTT integration, that cannot be at top level only, there has to be different levels at where at which this should be able to integrate, right? OK.

P P1 ▶ 7:33

Yeah, there might be. If something's yeah. If something's gotta kind of A cause and effect associated with it, then it needs to be pitched at the right level. I suppose so. And I think a lot of clients would be saying to us, look, if we pull our cloud connectivity, will this building still work?

RS Rishupreet Singh ▶ 7:42

That should be working.

P P1 ▶ 7:43

And that that's that's fundamentally that's what they're really saying.

RS Rishupreet Singh ▶ 7:44

Yes, yes, yes.

P P1 ▶ 7:46

Yes, and and obviously.

RS Rishupreet Singh ▶ 7:48

If that's not working, then yeah.

P P1 ▶ 7:49

And obviously the the visualization. If they can't look at graphics and things like that and that's hosted from a cloud, then there might not be a show stopper. But the if there's a cause and effect action that's not happening, then potentially that that is. And I suppose when we're talking about graphics now it's whether they're hosted from an as whether they're hosted from a graphic server, whether that server would be cloud based or whether there be some other server just I think that's the kind of issues that you will get with these things to to larger buildings. So it's almost as if you're a site to start off with and and push the concept of the building having to pay. No, lots of money for a server, for for

installation. Umm, that that for me that would be the way to, to to market it.

RS Rishupreet Singh ▶ 8:42

Do you think that when we talk about larger buildings? That getting the system always updated basically, do you think that is something that will actually make people or it will make you as a specifier switch to cloud based system? Because today I know that today we have we are at what EBO 4.2 and we know that there are buildings out there we are which are still operating. Like for five years, for three years they haven't been updated, right?

P P1 ▶ 9:10

Yep. Umm.

RS Rishupreet Singh ▶ 9:16

So that is the case. And then there are these cyber security issues which are more and more everyday coming in and we know that the latest systems that are there that are more cybersecure, do you think that can be one of the drivers for for this whole? Yeah.

P P1 ▶ 9:50

Yeah, I think it probably can be. And I think you still got these clients maybe using data center clients as a as a idea there that that some sites are completely isolated, that they don't have any kind of Internet connectivity, they don't use anything but course them, same sites turn around and say to us. But actually if there's a critical alarm, we wanna get an SMS text. So then you end up hanging an SMS SIM setup so that it can do that. And then obviously they don't realize the benefits of what you can. Get from data analytics in the cloud and things like that. So it's it's a little bit like having your smartphones now, isn't it? You bog standard phone. You can't do anything with it. You get a smartphone, then you have to accept the Google terms and con and conditions to say, right. We've got access to ev phone now it's a little bit like that for some landlord am I ready to kind of give that data to somebody, a And there's there's clauses in there that say that th they're still. They're still potentially opening the doc

and also opening the door to the whole cyber security concerns as well.
And.

RS Rishupreet Singh ▶ 10:35

OK. OK. And yeah, so tip.

P P1 ▶ 10:38

Yeah. So I think that I think that the cybersecurity, the up updating is is obviously good. But I think there's also people that need to be convinced around when these things are updated. If you've got a software package running, something that seemed seemingly quite critical, maybe it's a PLC and a chiller. And it it's just a. How does it go about doing its upgrade? We all know that you know, Windows sits there in the background and it wants to do an update and you say no, no, no, no, no. And then the next minute it's done it on its own anyway. And then your PC like maybe your whole user accounts been reset or spend on what company you work for, you can experience issues. So I think it's the way in which those firmware upgrades, let's say are happening behind the scenes to not have an impact on. Everything's operation, but yeah, that that would be a a way in I think to.

RS Rishupreet Singh ▶ 11:36

OK.

P P1 ▶ 11:36

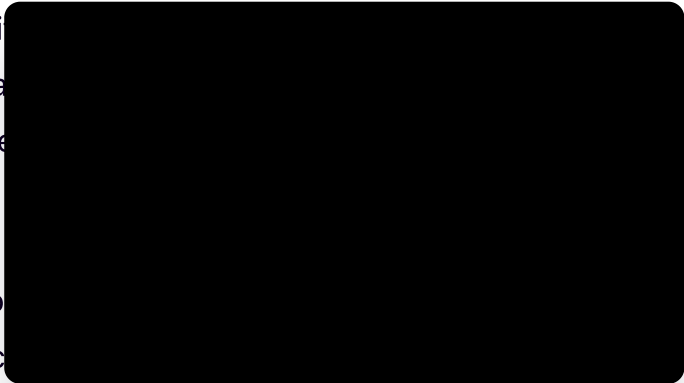
As a as a sales side of thing, you know to say, yeah, it would mean that your cybersecurity will be 100% protected as far as as far as possible.

RS Rishupreet Singh ▶ 11:44

So if I if I leave out data Centers for them, cyber security is like paramount. But for the normal buildings, the normal commercial buildings, let's say a building 400 square feet, 400,000 square feet or that kind of building, how important is cyber security. I consider cyber security as one of the most important. The rate a bit lower than the cost feeds like cost is more

P P1 ▶ 12:09

And I think most of the jobs that we're doing say for and they would be considered, they would be conc



security. And I think that it's all come about because as we all know, the BMS used to be a twisted pair that used to run around a building. It wasn't IP. Nobody knew much about it. The chance of being hacked into was fairly minimal. Now everything's IP. I you know, instantly you've got a risk there, but also now we're trying to converge systems onto a converged network. So we're taking BMS, we're taking lighting security, CCTV, all those kind of systems in and it's it's sort of up in the ante on the we're creating systems that are more prone to attack effectively. And because of that, everyone's worried about cyber security. And not only that tenants, sorry landlords providing. Systems for tenants are also feeling the pressure, because if a landlord system is attacked then. They then got to be answerable to all their tenants as well, which is why sometimes we're getting tenants that are almost wanting to be completely isolated from the landlord systems. That, as I said at the very start, you know, comfortable with their own Schneider setup on their floor, replicated for however many buildings they've got, they then know they've got a handle on their cybersecurity because they get you to manage it as a floor. They're not being, they're haven't got a landlord that's effectively could have a leak. Somewhere that they're never gonna find out about until they're attacked. And.

RS Rishupreet Singh ▶ 14:08

Yeah, yeah, you're right. You're right. And you mentioned integration of system. So typically what all systems will be integrated. You mentioned BMS, lighting security. What other systems do you think PME or like power can be far is also what system do you think can be integrated?

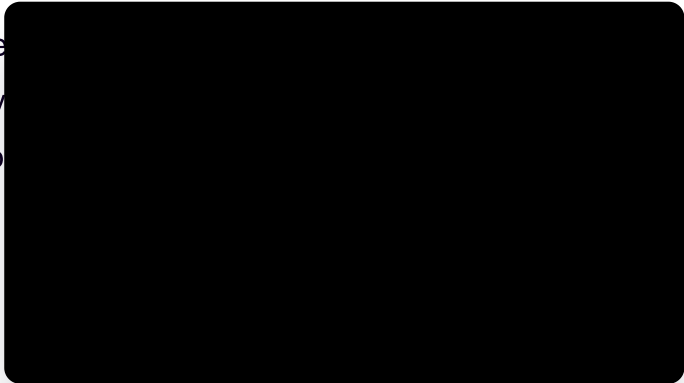
P P1 ▶ 14:12

So. I'm sorry I didn't think quite catch what you said then. Would you say par? Oh, sorry, power management. OK. Yeah.

RS Rishupreet Singh ▶ 14:24

So we have a PM system power management system something, yeah. So what I'll forget that just from y when you specify a system, what all systems do you specifications?

P P1 ▶ 14:32



OK, so normally I mean one of the main ones would be lighting. UM, if there's packages, various packages, maybe chiller packages with integrate with security systems, although quite quite minor. I suppose the integration of the security systems, some of the smart requirements where we're using phone as a parse and things like that maybe start to get us involved in the access control as well. But perhaps access control systems for alarm systems. I'm EMS energy management systems or EMS and all the different derivatives of that. And we interface with those PMS generally try and stay separate. And but. I think it's purely because of their network really. They just wanna have a completely secure, probably offline network. They've got PLC controllers they don't want potentially five or six other systems having a potential impact on their. There AMS and and probably that's more cycle data centers, but I think even in office setups and normally the P Ms would be the last one that you try and converge onto the network.

RS Rishupreet Singh ▶ 15:45

Integrate. OK, good. Good. Make sense. Make sense.

P P1 ▶ 15:48

Yeah.

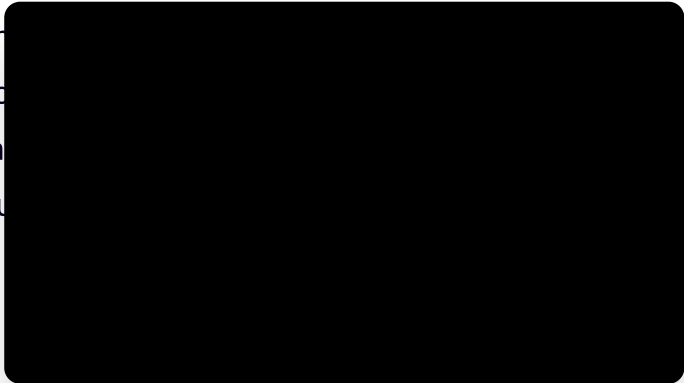
RS Rishupreet Singh ▶ 15:49

And uh. Typically for these buildings, especially small versus large buildings, how do you see who are the people who are managing the BMS like is it generally? Some a team owned by the landlord. Is it the FM FM P? Is IT system integrator, some kind of system integrator, some kind of contractor? You know? Who are the people who are managing this?

P P1 ▶ 16:14

So in terms of the BMS side of things, generally it would be a management agent and FM management agent, sort of JL or something like someone like that who would be responsible and on behalf of the landlord. From there, they would then push out the contract to a normally a in a case of Schneider Schneider House. And that that would be the way that we would be working. And and and.

RS Rishupreet Singh ▶ 16:44



OK. OK. Thanks for the smaller building.

P P1 ▶ 16:45

That sorry and and actually that is where some of the problem lies, where you've got that choice. Then if the landlord has got JL for example. And and one of the tenants has got CBRE, then that's where you start to get the problems with you know the cross connection of of division of responsibility where they're stops and where the other people start. And then there's obviously then all the data behind that in who's got access to what data et cetera. Probably on a smaller building and I would expect the same thing actually, even on something like a school. And you, you typically end up with an FFM management company and there might be an on site person, but directly. You know they're they're get away from changing differential pressure switches that have gone faulty and things like that. Then at that point you'd be calling in the BMS specialist anyway. And.

RS Rishupreet Singh ▶ 17:57

Yeah, I agree. OK. And uh, you just touched upon that and that was my next question. So how about onsite versus offsite, like how many, what kind of buildings do you think people have on site people to manage it and where they are there, buildings where they don't have onsite at all like it's just alarm based or you know issue based when they send someone?

P P1 ▶ 17:58

Yeah, I think. From the that we really are supposed now talking about the maintenance contract sort of side of things as to what's, what's part and parcel of their maintenance contract, what emergency call out period they've got in place and things like that. Obviously things like data centers, you've got 24/7 people there all the time. Then if you work down to some of the high end Canary Wharf office blocks, you might have 50 floor office block or something like that. They have someone there all the time. But then as you see less attendance. There might be then. A once a day or once a week to down to once a month down to a call out. But what being very critical of the industry. And quite often the landlord or the the managing agent, they want the minimum maintenance contract. And that stops every stops. Everything

from failing. They don't necessarily want to comply with. I can't think of the. The document now, but the the FM maintenance document that everyone tries to comply with the name escapes me now, but they're all trying to maintain to a certain level, so they pump, for example, needs to be checked every three months or those kind of things. That standard requirements for maintenance. SFG, 20. That's what I'm trying to think of. Which is the the maintenance document. And.

RS Rishupreet Singh ▶ 19:30

OK, so basically they are going away from on site personnel to need based attendance.

P P1 ▶ 19:35

Yeah, that's right, yeah. And actually, I know I've challenged a Wesley, do you know Wesley?

RS Rishupreet Singh ▶ 19:44

You know. Yeah.

P P1 ▶ 20:10

Westley Thurley from Schneider. Right. OK. So I've challenged Wesley on this before and he he's suggesting that with eco structure, you can affect be throw away the SFG 20 document and don't worry about how often you're supposed to maintain something because with the on site analytics, it can literally throw back and say you two days time, this is gonna fail and you need to go and sort it out. Now type thing. That's the concept, isn't it? That's where you want to get to. And I think that.

There's still some way to go to convince maybe some of the maintenance companies that that's the the best thing to do. And I think one of the issues is currently is most maintenance contracts that are in place. Everywhere at the moment do not comply with the minimum requirements of SFG 20, which is really just a list of when things should be serviced and maintained and if someone's providing a maintenance contract and they can't comply with SFG 20, then how are they even doing in the market? But they're having a market because otherwise I'd just be undercut by somebody else. I think if you flip that on its head and look at your own market, led to what needs to be changed, they'll still be some

metric for how often are we gonna need as a maintenance company?
How often are we gonna need to get to site to sort out a problem?

RS Rishupreet Singh ▶ 21:23

There's a hybrid.

P P1 ▶ 21:24

Because if your system can throw something up once a day, then they're gonna need daily visits. If we ignore all that and we go by SFG 20, we attend once a month. So there's there's that whole sort of trade off, isn't there? Between at what point? Yeah. At what point do they start to? And to value the information coming out of your platform as opposed to going by the the standard kind of SFG 20 document.

RS Rishupreet Singh ▶ 21:37

Yep, Yep. Good, good.

P P1 ▶ 21:39

But I think I don't know if we kind of gone off on a bit of a tangent here about maybe maintenance, but I can understand why you're asking the question. It's if you can demonstrate that you need less maintenance engineers on site and you can manage it better in the cloud, then yeah, OK. That is another factor.

RS Rishupreet Singh ▶ 21:57

OK, OK. That. And uh. Do you think so? When you were talking about integrations, I missed out on one part. Do you think that integration with work order systems is also something that can be looked at like?

P P1 ▶ 22:12

Yeah, I mean, we do, we do say in our specifications, there needs to be an interface to FM platforms and we probably don't push it enough. As consultants, we normally ask that this functionality be available, but we don't really push it to the enth degree. The reason being is. If you like, we've, we've already kind of cleared off site before the final maintenance contract is put in their system. I mean, this is what I'm sort of talking about with these digital twins, where you can load all the information

all the maintenance. And I don't know if you know twin view. Have you heard of Twin View as a project, as a product?

RS Rishupreet Singh ▶ 23:02

Uh. That.

P P1 ▶ 23:04

And so that's that's from bimtech.

RS Rishupreet Singh ▶ 23:06

Yeah.

P P1 ▶ 23:07

I don't know if you've seen that product, uh, they they effectively run their own maintenance platform as as part of the whole. And BMS, if you like. It's it's it's kind of an extended BMS for 3D modeling and all the rest of it and it'll tell you, you know when something was last maintained. And that's quite a it's quite a good system. And.

RS Rishupreet Singh ▶ 23:59

And one more thing, you mentioned about the. So if we take the same scenario where we have a landlord, we have like 30 tenants. Do you think that when we talk about hosting the BMS in a cloud, there will be a scenario where landlord or tenant would want it hosted in their cloud or we can as a Schneider we can host it in our cloud and send the information to them. Whatever is required like the they get the output not not hosted in their cloud like how do you think it? It will be posted.

P P1 ▶ 24:03

I don't. I don't really think there's any landlords that we've come across. That would object to you having it in your own. Umm. I mean if you started talking to someone like British Land for example, they've got their own ideas and you know they want everything
That said, there's nothing to stop you from making
through, you know, MQTT queries. From your broke
and things say there's that data exchange can happ
there is trying to avoid. We had one scenario where
who were doing the 3D digital twin and we had sma
A an app for the building users and the two compar

trying to compete with each other so they wouldn't share information, so they had a doubling of information in the cloud. So there was a. At Bimtech cloud and there was a smart spaces cloud and never the two would talk to each other and there was just. It was just a complete duplicate. The information from from the building, which seems ludicrous and one of the solutions I was trying to implement when I was doing the smart building side of things was actually have a an almost an IT broker that was neither the digital twin installer or the app installer. So have someone that was kind of removed one step removed from. And providing a service. So they're just providing the cloud space and that way you can then tell the end the people that are using that information, you can tell them all individually. Well, OK, you're using this cloud, you're not talking to site. We're not gonna allow you to talk to site. You need to talk to our cloud because that's where your data is coming from.

RS Rishupreet Singh ▶ 25:52

OK, good. Good. Make sense. So that can be one scenario. Ohh any any standout features you think that today? If we have a cloud based BMS, some someone will need anything that I know you've touched on a couple of them, but anything else do you think that? The we should include in that if there is a solution.

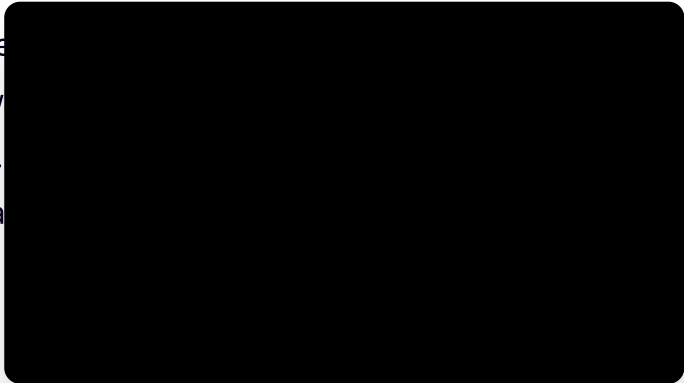
P P1 ▶ 26:14

I'm I think the overriding one every time is is cost, isn't it really? If you can demonstrate that, you know we can provide this solution. I'm traditionally if we provide it cloud based, you'll get additional updates. You won't even get involved in the updates cause we'll be doing it in the cloud anyway. It's demonstrating then the cost save really to the client and any perhaps additional analytics that they wouldn't be getting if it was based on site.

RS Rishupreet Singh ▶ 26:43

OK. And how many of these clients are actually interested in analytics? Like then we talk about especially smaller clients with smaller buildings and with smaller size of buildings as well. Are they more interested in analytics or they're more concerned about the buildings?

P P1 ▶ 26:59



So probably more more along the slot smart side of things, it's things like office utilization, disk utilization and things like that, all analytics based around their air quality with COVID and things they're all interested in that kind of analytics and probably the most overriding factor of always energy as well. So they all wanna reduce their energy. They all wanna have a carbon neutral building. They all want to demonstrate that. You know their their carbon usages is being reduced by something they're doing on site. And.

RS Rishupreet Singh ▶ 27:34

So basically we are thinking everyone would need analytics like people are valuing the need of analytics, right? OK, good.

P P1 ▶ 27:40

Yeah, yeah, to to to vary in extents, obviously a smaller site might have their their key metrics that they're interested in. They might have five or six, but if you're talking to a bigger client, there might be hundreds or thousands. It's a little bit like a smart buildings with a use case. You're dragging all of this data in and right here, right now, you might not have a reason for. You might have a reason to interface your security system with your BMS. But in a year's time, someone might dream up something. That or if this door opens, I want to. I want to do XYZ on the BMS. So the whole idea of this use case is that it's blue sky thinking, isn't it? It's not necessarily something that we thought of yet.

RS Rishupreet Singh ▶ 28:24

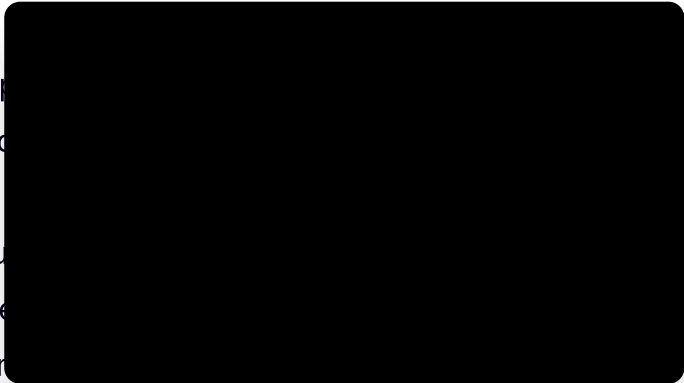
Yes, yes. OK. One, one more thing I wanted to ask Stuart. So when we talk about cloud based PMS?

P P1 ▶ 28:50

Umm.

RS Rishupreet Singh ▶ 28:50

Uh, I know that there is one way to stitch stitch it up
Jesus or take S I'll not talk about Schneider stuff no
here, take Jesus and stitch it up and build your get
subscription from Microsoft or AWS and Switch it u
That is done at system integrator level, but then the
organized? Cloud solution that is available from some



competitors, I would say or any other player where you do not have to sketch all of that app. Basically you go to demons or Honeywell or Schneider and they they give you the complete solution which is in cloud is that is there something that you see in the market today?

P P1 ▶ 29:14

And. Yes, yeah, I think there is a there is that available already. And I suppose it's just. It's just getting people to realise that perhaps that's something that they want or not, and I think the product, what you're, what you're suggesting, yeah, it does exist. And sometimes. Yeah, sometimes the BMS is almost quite a small element of that, but I know obviously Schneider, there's not just they don't just specialize in BMS. They've got other areas of expertise as well. So that's what makes it a bit more better to pull together. But having said that, you've got people like smart spaces for example, who are really an IT company. They're not BMS company at all. They will literally plug into a building, extract all of that data from the building and try and give you analytics. And and and try and get involved in that area of the market. So you could argue that actually a lot of the BMS companies are behind the times a little bit. I'm in bringing these types of products to the market because you're getting IT. Companies that are are trying to be one step ahead of everybody and they're all really bringing out products that can do it.

RS Rishupreet Singh ▶ 30:33

OK.

P P1 ▶ 30:33

Umm I did find that this this was quite prominent when EMS's were first sort of introduced and they were quite popular. There was lots of little EMS energy metering companies that are popping up left, right and center and the BMS companies were just sitting there going well. We're logging all the values we're showing them on a graph. And and and they kind of got left behind because these energy mana they were literally producing graphs, analytics, they billing and and they they really got right in front of a companies because they were able to produce use end user and it all of the BMS companies, I think m of them are kind of picking up on that now and prov valuable information to them. But I can see the same thing happening

here with cloud analytics. You're gonna get companies that are. Our IT companies that are just you just give them the data. I mean some of the IT companies is crazy the way they work they they're literally they've got a complete system and they just they just plugging in their IP network to site create their own VPN back to their servers and then they're extracting all the data from the building and they're charging an absolute fortune to present that back to the landlords. And to show them what's going on in their building.

RS Rishupreet Singh ▶ 31:53

Don't. Uh, I'll try to differentiate here amongst the two things and you tell me it's customer sees that as a value or not. So one is. Get having a traditional BMS.

P P1 ▶ 32:05

Mm-hmm. Yeah.

RS Rishupreet Singh ▶ 32:17

And building a layer on top of it, like what's smart spaces are like. There are 20,000 other startups who are doing the same thing today. They want they don't want to add into BMS space because that is a complicated space, but they want information from the BMS. They'll process that information and they'll send it graphics and analytics and insights to the customer. Right. That is one layer.

P P1 ▶ 32:26

Yep.

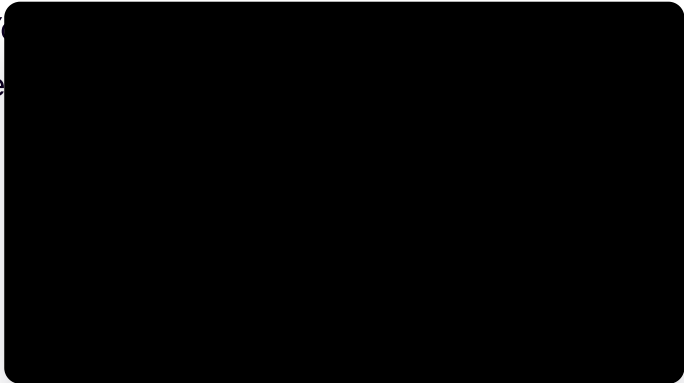
RS Rishupreet Singh ▶ 32:27

But then the limitation for that layer is that if you still, if you have that layer, but if you still want to update your BMS if you want to remotely control your BMS. If you want to make any major change to the BMS, you have to have access to. I'll take our example. You have access to workstation. For EBO, you'll have to access

P P1 ▶ 32:49

Hmm. Umm. Umm.

RS Rishupreet Singh ▶ 33:03



Jesus own system. You cannot make those changes from that layer, right? But if I, if I talk about the other way round, that if this whole system moves in the cloud, if this BMS moves in the cloud and then the smart spaces doesn't have a, they can still stay on top of it because they have cloud connectivity. But do you see a value of moving the solar system in the cloud and leaving that? Because if I compare with smart space, I'll compare our building analytics with the smart space. So that is the layer.

P P1 ▶ 33:23

I think.

RS Rishupreet Singh ▶ 33:23

On top of BMS, right. So do you think that people will actually appreciate BMS moving to that cloud or they are OK with BMS staying where it is?

P P1 ▶ 33:24

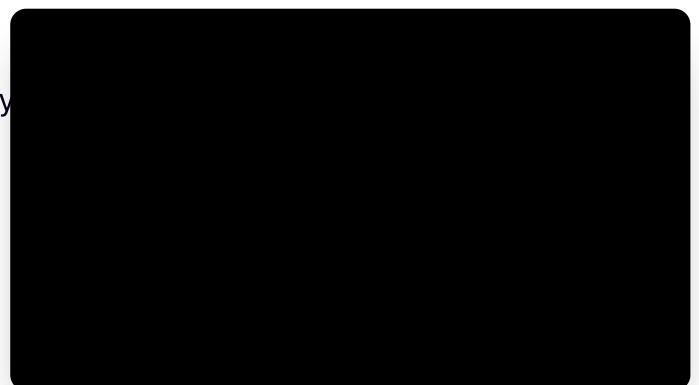
Well, I think they, I think they would, but I think they would have to understand the process because if you walked up to a landlord and you said all your BMS can be in the cloud, they'd turn around and say, well, what does that mean to me? It's unless you can demonstrate the uh potential. Mainly that's cost saving, isn't it? That makes people sit up and think about what you're saying. I'm pushing the idea of the cybersecurity if if you can push as many key positives out of. Doing that move then justify it. Then the landlord's gonna turn around and say, yeah, OK, you've got a point there. That would be great. I wanna get to that point. And if? And and you gotta be competing against. Everybody else is sales pitch who's also trying to extract data and trying to give their own offerings as well. It's the over and above extra that you can do things like your firmware updates that that's the value on top of what they can already do.

RS Rishupreet Singh ▶ 34:25

Yes. Yeah, I think I heard a lot of questions and why questions you wanna go ahead?

P P1 ▶ 34:35

OK. OK.



RS Rishupreet Singh ▶ 34:38

Thank you. Thanks to all for me. I think that was a very useful information and will have few questions here, I'm pretty sure.

AF Antoine FRANCOIS MARSAL ▶ 34:41

Well, yeah, I think I think most of the questions I have were covered as well. So maybe just a couple. Umm, you were saying you were talking about those IT companies? That, you know, our truck and you use the word basically charge back or fortune to the landlord. And I'm wondering if you could tell us more what's the fortune basically.

P P1 ▶ 35:01

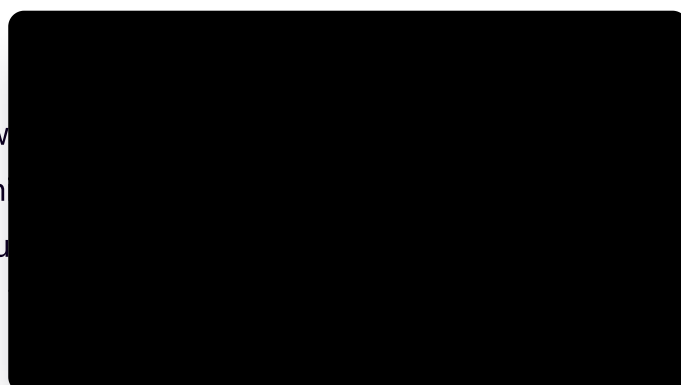
And I don't if I can quantify it in terms of real cost, but they're they're taking the data from the building, they're consolidating it, they're running analytics and they're producing graphs, let's say that shape, say something simple like the OR something perhaps slightly removed. So say it's the desk usage. If you've got sensors around all your desk, that tells you how many people are at your desks, all that data is going back up to their cloud platform. They can then produce something that tells. They. The landlord? Yeah. Yeah. I've got 20% occupancy of this floor or something like that, but they're they're charging for a subscription based. They're charging for point by point. I mean, one of the people that we're talking about here was charging a like a lease cost or subscription cost for a desk sensor of something like £180.00 a year. And that was per desk per sensor. So we know that we can buy a sensor for 60 or £70 that would do exactly the same thing. We could connect it into a BMS, a smart system, and actually all of that cost, that supposed subscription cost.

AF Antoine FRANCOIS MARSAL ▶ 36:23

Umm.

P P1 ▶ 36:24

Is then it's in our back pocket. Effectively, if if we w sorts of amounts. So it's it's people, it's IT compan bit. Queue on the way they try and sell things as su when actually that's, that's where you could come undercut that.



RS Rishupreet Singh ▶ 36:40

Do you? OK.

AF Antoine FRANCOIS MARSAL ▶ 36:45

Right.

P P1 ▶ 36:45

And they, but essentially they are selling their data back. You're you're they're selling your own data back to you, just in a in a presented format.

RS Rishupreet Singh ▶ 36:50

So then we are talking about. Yeah, if you in the cloud or BMS in the cloud, we are also basically talking about a more subscription model, right? So that.

P P1 ▶ 37:15

Yeah.

RS Rishupreet Singh ▶ 37:15

Uh, there will be a subscription yearly subscription instead of 1 flat fee and then you control everything. Do you think that is OK with the with the? That will be OK with the customers because when you have something in the cloud, there is a continuous charge that will be there, right?

P P1 ▶ 37:16

And so I think they're OK with that, but that's probably on the basis of looking at a a landlord with a tenanted building. Is a classic because if the landlord can charge that back to the tenants. Then he's not really gonna care about that cost. If it's a cost, which he's not gonna be able to push back to his tenant, then at that point, he's gonna start tightening the purse strings. And on subscriptions, but certainly a lot of probably using the idea of smart is is probably the most scary moment because they're thinking, you know, do I need £1,000,000 on my building 5,000,000 pounds, £10 building? And how much is it gonna cost me a year building running? And there's there's that whole cost have got to worry about. And I think that that also comes to BMS as well, because they think if we start getting the BMS

into this sort of smart. League, where everything's Internet connected. Then am I gonna see my BMS cost just sort of smile spiral and turn into these subscription costs as well. I mean, we've already seen it with like a Niagara solution with Tridium licenses and things like that. Lots of people always say, oh, what's the crack with these licenses? I'm going to be spending an absolute fortune. And and it's it's interesting seeing that journey pan out as to well, we know that things are changing to a one off from a one off cost. So maybe old school type BMS people would be saying they buy a BMS and that's it. That's the end of their spend. Then it's just maintenance but but to turn around and say to someone Oh no, that control is gonna cost you £100 a year or something as a subscription base for all the points that are on that product then people. People start panicking about that and it's it's really getting. I suppose it's it's your QSS along the line. It's your, UM, your financial people that have got to accept those ongoing costs and. Think that that's a normal process where at the moment people are perhaps bulking to it, but actually, as if it's sold in the right way. People understand what they're getting for that subscription. And then people are happier with that. And I suppose that the best thing to try and sell a subscription on is the back of cybersecurity and updates. Because then people can relate to that. People have got a computer in front of them that's got windows on it. And you know you you can relate to. That virus updates on a computer, so it's it's a lot easier for someone that's not involved in the detail to to relate to that.

RS Rishupreet Singh ▶ 40:00

Because you take, you take. Of Andrew, I'll have to again interrupt you one, one question I have more so when we talk about a building where? Someone would want to outsource the job. Let's say like if, right? So what are the jobs that someone will prefer to outsource? Like for example system upgrades? So who will landlord, and let's say landlord is the guy here who is going to decide? Who will the landlord? Outsourced this job too. Will versus. Will there be open to outsource? What will be the typical SLA that we are looking at? If a system upgrade required, will they would want to outsource?

P P1 ▶ 40:47

So it depends on whether it's a a routine, a firmware... whether it's a a complete. So a consultancy would be involved if it's

seen that all of this equipment is X amount of years old, we might do a survey or something to establish which controllers need changing which panels need change in what's equipment for each end of life. That might include all the mechanical equipment as well. But BMS could be part of that. And it depends if you're looking at that sort of size things, in which case it would be a a proper project that's created for that and it would go out to tender and then potentially either the incumbent BMS company. So whether that's a system House of yours. Or whether it's someone completely separate to that that wins the contract on the back of the tender proposal and that's that would be the way that you'd go on a large scale thing if it was smaller and it was you client became aware that there was. You know, as you said this earlier on, you know the the EBO. And software version was three lots out of date or something like that. And then if the client was aware of that, then they would generally go to their incumbent BMS supplier, Systems House. And from your side of things. And they would say, can we have this as a sort of a one off upgrade. So ideally that would be included in the maintenance cost. Really, I'm there's no reason why it shouldn't be, but if it was excluded to be cheaper, for example, and then they might have to do a review every few years and say ohh well, this stuff now needs updating though again, they would just get a price off of the contractor. Who would generally be the incumbent to do that upgrade?

RS Rishupreet Singh ▶ 42:43

And what about alarm monitoring? Would they want like in a cloud scenario, would they want R team to monitor the clouds and just send them the information or they would want still their system integrator or a person within the organization of a landlord to landlord or FMC to monitor the alarms like alarm monitoring? Can it be outsourced?

P P1 ▶ 43:03

And. It can be outsourced. I I suppose again, it would depend on the size of building and if it was a large building then you would want to outsource your alarms because you've got there is alarming and the alarm routing would generally be done by the company. Umm, so if they're not on site all the time the BMS might only be there once a month. And FM with maintaining mechanical equipment, the FM company would be there all the time either, in which case they might have a a Bureau that

they. Manage potentially, that's something that you could offer or no. And instead. And it's it's just really how it's packaged together. But I think it's really just a case of thinking of all of these individual things and and most of it is is making the the client, the landlord, whoever it happens to be aware of. Actually all of these additional, all of these things are all additional costs and we can package up something that takes all of those individual costs and puts it into one package.

RS Rishupreet Singh ▶ 44:15

But that will kind of put us in competition with FM company, right? If we are going.

P P1 ▶ 44:21

Yeah, yeah, it depends how you sell it. Unless you set it as sort of options. So you go for the basic option, which is, you know, yeah, you upgrades are included. For example, if you then started going into the market of the FM side, the FM, so FM products, FM computer systems that have got your data feeding into them, you can potentially go into that market, but you're not really in, you don't really want to be the ones to turn up on site and. You know, sort out a leak or. And swap out a pump or something, do you? You wanna be your software as a cloud is where you're trying to make your money.

RS Rishupreet Singh ▶ 45:00

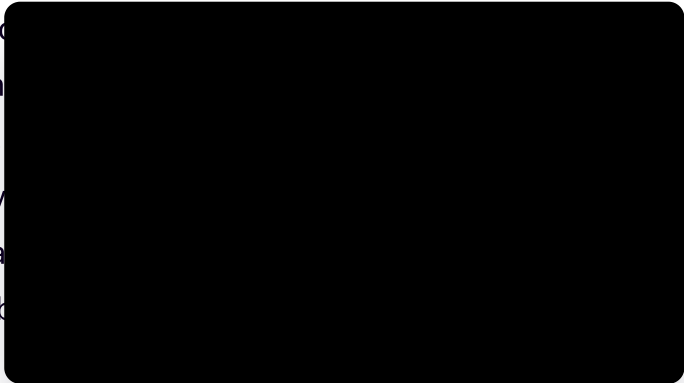
Yes, yes, exactly. And what about?

P P1 ▶ 45:02

Sorry, software as a service.

RS Rishupreet Singh ▶ 45:03

Yeah. And what about just related to that, what about remote maintenance? Do you think that people will be open like you just mentioned that that is where we should play, but do you think they will be open for that, like will there be okay of saying that we will monitor my. That's done all the time, and if there is a problem with my FM company and this is extra fee that I'm ready to pay because then that reduces one job of company that they would have because FM company will probably charge on the k



P P1 ▶ 45:32

Yeah. Yeah, I think.

RS Rishupreet Singh ▶ 45:35

You know how much they are monitoring and how much energy they're spending. Yeah.

P P1 ▶ 45:57

Yeah. I mean, I think it's really a case it's comparing the two, isn't it? So the service contract of the of the FM company starts off up there somewhere. You're you're offering starts down here and I think the more you offer the, the lower the fee is then for the FM company. So you are technically competing, but at the same time you might be making that FM companies job easier in the process. I mean, we had a whole scenario with a digital twin and we put in a project and if digital twin maintenance, literally the guy just sat in front of the machine and it would tell him what needed maintaining when it needed maintaining. And they employed an FM company who didn't have a clue how to use this FM model, and they literally went round the plant room with, like each plant room with a pen and paper, writing out all the assets.

RS Rishupreet Singh ▶ 46:22

OK, cool. Cool.

P P1 ▶ 46:23

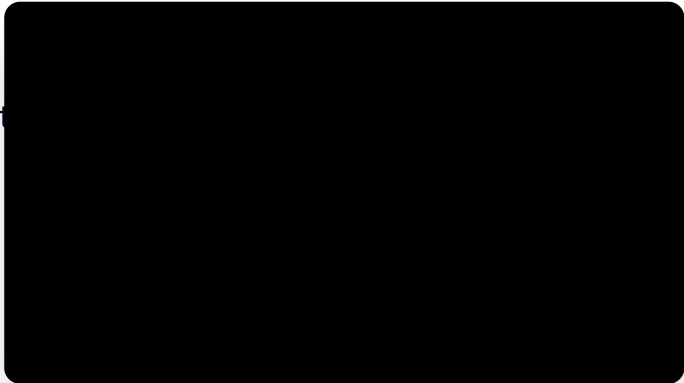
And and yet there's a there's a digital platform that's listing every single asset when it was last serviced, and absolutely everything there is to know about it. So there's there's that whole learning piece as well in that if you, if you have a maintenance company that not really. And technically advanced enough. Then you could end up literally wasting all your money. OK.

RS Rishupreet Singh ▶ 46:48

Yes, it exactly vendor other. Any other question Ant
short of time. I'm sorry.

P P1 ▶ 46:51

Yeah, that's right.



AF Antoine FRANCOIS MARSAL ▶ 46:53

Hello we we got a ton of valuable feedback. Really appreciate your time.

P P1 ▶ 46:58

OK.

AF Antoine FRANCOIS MARSAL ▶ 46:58

Speaking very quickly. Maybe it just you know, I see that we have only one minute left. So is there anything that we should have asked? Ohh. Any final thought?

RS Rishupreet Singh ▶ 47:11

So yeah. So any, yeah, any any final thoughts, any recommendations for us if we are going in the in this PM in the cloud kind of business, any recommendation you have for us to work based on your experience? That.

P P1 ▶ 47:35

And I think I probably said everything to be honest and apologies, I've probably been a bit scattered gum with with what some of what I've been saying, but hopefully you've picked up on on some of the some of the information. But yeah, I don't think I've got anything further, but obviously if there's anything else you wanna. And you can think of you think ohh we should have asked him about that. Then by all means, drop us a line. OK.

RS Rishupreet Singh ▶ 47:54

That would be great. Thank you. Thank you for that. And I'll try to catch up with you once next time I'm in UK, you're busy.

P P1 ▶ 47:56

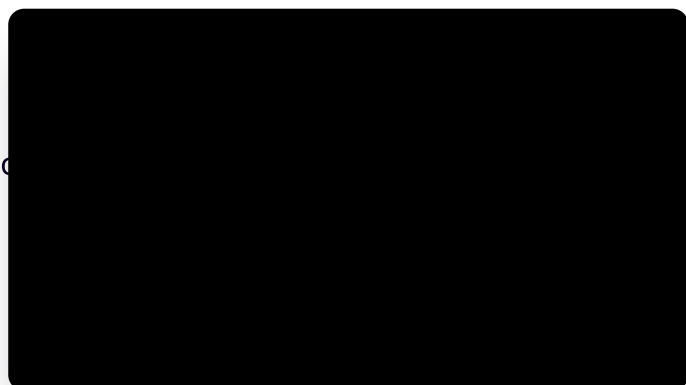
OK. Thanks very much. Cheers.

RS Rishupreet Singh ▶ 47:59

OK. Thank you, Sir. Thanks a lot for this conversati

AF Antoine FRANCOIS MARSAL ▶ 47:59

Thanks again.



P P1 ▶ 48:00

This. Thank you. Bye.

AF Antoine FRANCOIS MARSAL ▶ 48:01

OK.

RS Rishupreet Singh ▶ 48:01

Have a good one. Bye.

