Key:

- All blue text is moderator interludes recorded separately
- All black text is re-arranged audio from main recording of Tommy Russo (with edits noted as strikethroughs)
- All black text highlighted in yellow was captured in a second recording with Tommy Russo

Webinar

Sarah: Good afternoon and thank you for joining us today for our Real Estate Operations Masters Series. Today's topic is Real Estate in the Cloud – why bringing your business online isn't a question – it's the answer.

My name is Sarah Fisher, Marketing Communications Director at Building Engines, and we are sponsoring today's presentation. This Webinar is part of our ongoing Real Estate Operations Masters Series, where we present expert content from industry leaders on a variety of important building and facilities operations topics, at no charge to you.

In addition to today's webinar, we have prepared other content on this topic including video vignettes, checklists and articles that we will be sharing with you over the coming days and weeks, so please look for those as follow-up to the webinar.

Our featured speaker today is Tommy Russo. [read 1-2 line bio of Tommy here]

Before we begin, I want to take care of a little housekeeping. Our session today is a one-way Webinar, meaning that you will be able to hear us speak, but we cannot hear you. However, you will be able to write questions in the GoToWebinar "Chat" window on the right hand side of your screen. You can also close the chat pane window to see more of the screen. I will monitor the Chat window to answer any logistical questions you might have. We will open the meeting up to Q&A at the end. We are recording this webinar, and you will receive a copy of the webinar, as well as an mp3 version and transcript for you and your colleagues as part of our follow-up after the webinar.

I also want to let you know about some of our key upcoming events.

*** Sarah do you want to mention the EBB, mention it's an executive only event but if anyone wants to request an invitation for their management team to contact you directly.

*** And then mention the March webinar speaker/topic as well.

So, as we prepared the agenda for the webinar, we thought some of the topics that you'd want me to cover with Tommy are:

• What is the Cloud and how does it impact building owners and operators?

• What does it mean to take your building online?

• What are some best practices and success stories?

• How does this impact key performance areas such as tenant satisfaction and profitability?

So with that we will welcome Tommy Russo.

OK, thank you Sarah, it's great being with you here today.

Could you start by introducing yourself to the audience.

Hi, my name is Tommy Russo. I'm the Chief Technology Officer at Akridge. I've been with Akridge for about fourteen years. I've been in the current position for about ten of those fourteen years. I like to say that I started in the field and worked my way to the top. I started with Akridge as a building engineer, worked my way into the Technology Department, and then basically headed up the Technology Department. So I get a unique perspective on how the buildings are run, why they run, and how to make them run easier, because I've lived in the shoes of my engineers and through the ears of my clients. My background is I was an electrician. I morphed from being an electrician to be a Microsoft certified professional, and the rest is history. ~~I work for Akridge.~~ Akridge is a great company. We're not the biggest, we're the best in Washington. We are, I like to believe, on the cutting edge of technology, so if it's out there we've tried it, if we haven't tried it we're planning on trying it or have already discounted it.

We have 37 buildings, I think about 7 million square feet, and our historical portfolio has been 98+% leased since we've, ~~you know~~, been in business. ~~So -- and I like to say~~ technology's been a big part of that~~. I've been here 14 years~~; ~~I can say~~ in the 14 years I've been here~~, you know~~, it's been huge. We have clients that love every piece of technology we put in the building. We have some clients that don't even know that the technology is there and don't care to know it's there, just know it works~~, and that's the majority of the people, but I'm fine with that, too.~~

Sarah: The title of our webinar today is "Real Estate in the Cloud". Could you start by defining for our audience, what is meant by "The Cloud"?

The cloud, in the real estate world, is basically the internet as a median for collaboration, and for productivity. If I were to define what the cloud is, it's the ability for my users to work seamlessly, no matter where they are, or how they are. So if they have a connection to the internet, they can be a productive member of my staff.

Sarah: Another term that's connected to "The Cloud" is SaaS. Can you explain what the SaaS model of software delivery, means for building owners & operators?

(the below is edited and re-ordered)

What SAS is it's Software As a Service.

SAS is a good thing.

The pros are, there's no real overhead. You don't have to worry about whether it's installed on your computer, whether it'll work on this computer and not that computer.

You're subscribing to a service that is providing you with software over the internet.

implementation is probably the biggest selling point for SAS. You're not having your IT walk around and install software on everyone's machine your deployment time and implementation time should be cut drastically.

Sarah: Ok, and that's important because shorter implementation time means less disruptions and less risk for implementing new software, and the software as a service model means that you are buying into a proven platform tried and tested by other peers in your given industry.

I think SAS equalizes the playing field. It doesn't matter whether you have 1,000 users or five users. ~~Maybe you pay a little more per user if you have five, than you would if you had 1,000, but it levels the playing field.~~ It allows you to go in there and get the same services as the biggest guy on the block. ~~Just because they have 10,000 people they can afford to do X, Y, and Z, if you have 10 people, maybe you can't afford to do X, Y, and Z, maybe you can only afford to do X.~~

~~But~~ when you're subscribing to a model that has everything, it ~~basically~~ levels the playing field. Because now, the little guy has just as much opportunity as the big guy to understand, and control, and manage their data. ~~You know, maybe the small guy can't afford a 15 terabyte storage array, wherein the big guy says hey, I can afford 100 terabytes. So, you know, the small guy uses tapes, and the big guy uses online backup.~~ With the SAS model~~, and the dollar or two dollars a terabyte for backing up~~, it makes it affordable for everyone. And that includes IT costs, building costs, maintenance costs, everything. Because it really allows everyone to get a fair shake at what services are out there.

Sarah: So with that as background, "The Cloud" creates an opportunity for buildings to bring their business online. As someone who has lived this for the last 14 years, how would you summarize to your industry colleagues the key reasons to bring your building online?

(Note: He never said "these are the 3" but I think your slides can present this as he is summarizing 3 key areas of benefit for bringing your property/building online)

(Audio between the paragraphs below has been removed)

We all have set resources. So I know how many engineers, and how many property managers, and building managers I have in every building. I know the demands of our clients, and our users, and our owners gets greater, and greater, and greater as competition becomes better. So the more I can get out of people, ~~and I'm not trying to make it more than 20 hours a day~~, as the same eight hour day, if I can

create a product, or an application that results in saving time, and increasing productivity, everyone wins. ~~And I can do that by a fast deployment schedule, by having an application that's easy to use, readily accessible no matter where you are. So it really goes back to, you know, making sure you can get the most out of the time you spend in the office. That would be one side.~~

(short pause for breath)

Improving building operations. I mean, it's huge. If I can predict when things are going to fail, and I can predict it by using the internet as a database to go back and look at my systems, and say a light bulb should fail, or a motor should fail when it reaches this age, or this capacity, and tie that back into my control system, or my building itself, it's leading to huge savings in the building, because I don't have the energy cost of an inefficient motor. ~~It's saving huge value to the client who never noticed that motor~~

(short pause for breath)

The client experience, and client retention is another big thing. I'm lucky enough to say I work in a portfolio that's been 99 or 98% leased for the 36 years we've been in business. And I think a large part of that is the technology, and utilizing things that make everyone's job easier. ~~We've had all of our~~

And at the end of the day, if we make the occupants of our building happier, everyone's happier.

Sarah: Ok Tommy, I want to explore some of the topics you mentioned further. You talked about improved operations. Those in the audience who have joined us for previous webinars in our Building Operations Masters Series know that we ran a past webinar on the topic of preventive maintenance, but I understand that you are using online technology to take preventive maintenance to the next level.

(this is edited) We don't even call it preventive maintenance anymore; we call it predictive maintenance. Other than very small things such as light bulbs where you're not really going to change a light bulb before it burns out, I look at all the preventive maintenance tasks in a building and almost every single ~~solitary~~ one of them can be predicted, and if you can predict it you can schedule it based on a prediction. Every aspect of the building can be predicted. It's not a living beast, it's an engineered device that from day one you had mechanical engineers, mechanical and electrical professionals out there designing systems to run at their peak performance. When you have a goal that has been set for you, you just have to live up to the goal and actually better the goal, and we've been able to do that. We've been able to address things and make things run more efficiently by altering time schedules because we can look at the curve of electrical consumption and say, hey, you know, if we cut the plant off at 5:00, even though the building's open until 6:00, we could coast on the water that's in the system for an hour, saving, you know, thousands of watts of energy because we're not running the outside plant. We have all night long to recover, why not? We're still running it. No one in the building knows the difference, we're just saving it. In every aspect of the building I can't think of any other than light bulbs truly that you can't predict.

(Next step – predictability with analytics) So our next step is to start predicting things and say, ~~you know~~, "I can see that the compressor on one of the air handlers is drawing 25% more power than it should be."

In saying that I know that there's a problem with it, so now I can now create a work order and go ~~(inaudible)~~ look at it before it fails.

(this paragraph is inserted from elsewhere) With analytics we're able to take the information he put in and find out how far out in the future we have to schedule the next preventive maintenance. So if he goes to the air handler and says the filter was only 50% clean or had 50% life expectancy left, we can then possibly automate the process in saying instead of three months between preventive maintenance for this particular handler, let's make it four months and track and analyze all that data. ~~He never had to go back down to the computer and re-enter that data. So that's from a building engineer's perspective.~~

You know, once that really starts rolling out the limits are endless, because now you're never running to try and fix a problem, you're fixing problems before they happen.

(this is from elsewhere) You predict it, you prevent it, it's fixed.

Sarah: Fixing problems before they happen, that speaks to one of our key themes of this series which is proactive building management. Can you share any specific examples.

(Example – the on/off mammoth units and cost of emergency repair vs. predictive approach)
We had a building we used to manage that we no longer manage that had mammoth units on the roof. For value engineering purposes, when we took over third party management of the property they did not want to control the mammoth units. What they wanted to do was be able to turn them on or turn them off, so basically what it is is a big air handler on the roof that ~~basically~~ supplies an eight story building with all its air handling. We had the ability to turn it on and turn it off, make the clients cool or not cool, hot or not hot. We came in and said, "Look, we really need to upgrade this. We can spend, you know, $20,000 and create, ~~you know~~, DDC controls and control this unit so we can control what's going on in the unit, not just whether it's on or off." "No, no, no," the ownership said, "we don't need to do that, we don't need to do that. It's worked this way for the last six years, it'll work that way for the next six years, and we'll worry about it when the lease comes up." Again, we tried to talk them into it, ~~we got to try to talk them into it~~, they say no. Two summers ago was one of the hottest summers Washington, D.C. area had ever seen. ~~It got to be an 85 degree day with 100% humidity,~~ so it's smoking here in D.C., and guess what happened? The compressors failed in that mammoth unit. So now we're stuck with three dead compressors in a building filled with people on, ~~you know~~, a 100 degree day with 100% humidity and we can do nothing about it. So what we have to do is we have to start scrambling to find compressors. We find three compressors in California. These compressors weigh about 1,600 pounds a piece, so we had to hire a basically a air transport company to fly them from California to Dulles Airport, and then get in a truck from the Dulles Airport over to the building. What do you think that cost? 40 grand, 50 grand, 60 grand? I know it was north of 40 to get those shipped in, and if I could've predicted three weeks earlier that those compressors were drawing more power than they should've been, or the fluid, the refrigerant was hotter than it should've been, we possibly could've prevented that, and we could've spent, you know, $1,000 having a truck ship them across the country when we needed them, we could've scheduled the work for a Saturday when the building wasn't

occupied, and no one in the building would've known the difference. That's just one instance of where being able to predict a failure before it failed would've saved tens if not more thousands of dollars, which is huge, absolutely huge! And that's just one small instance.

Sarah: Not to mention the tenant issues that must have arose from the situation. You're talking about a negative tenant situation that could have been avoided – another area from your list Tommy is the positive side, improvements to tenant experience from bringing your building online.

We are in an information society.

~~You know, I used to –~~ when my parents were my age, they relied on bank statements they got every month from the bank. I can tell you, I log in once a month or once a week and check my bank statement to make sure I don't have any charges that are wrong or, you know, make sure my wife isn't spending a million dollars.

Well, ~~that's (inaudible)~~ back ~~down~~ to the ~~level of the~~ building, ~~as well~~. Let's automate our mortgage payment or rent, the lease payment. Let's automate the corrective and preventive work orders so that our engineers can log on and see where they're at. Let's make sure that the client can log into our systems and make sure that they've seen that their rent payment, their lease payment has cleared. Those communications are huge.

And then the ability to connect to the engineer on the field you can't even put a dollar value on. If a client calls our office and says, "Hey, I have a light bulb out. I need a change because we're having a big client come in and I want it to look great," if I cannot get a hold of that engineer via e-mail or communications, the chances are we're not going to get that bulb changed, so we have to be able to communicate down to that level.

Sarah: So Tommy, how does this tenant experience delivered through online technologies impact the bottom line?

lease renewals. ~~Same thing~~. ~~You know, what if you have a lease renewal that's up for renewal and you have a flood or something like that right when it's time to renew a lease for somebody?~~ In retention -- ~~you know~~, if people realize, "Hey, I've been in this space for 20 years and I've never seen something go break ~~or happen like that~~, or if it breaks they fix it really fast," what's that worth to retention of a client? And clients get that, as our clients since 2001 have been able to go online and check the status of the corrected maintenance orders. Where's the value in that? They've been able to go online and submit work tickets since 1999 into our work ticket system. We have had clients that literally have left our building and gone to other buildings because they have, we have run out of space for them, and then have come back to us and said, "Could you please manage our building?" And we've won management of those buildings based on the services we offer.

Sarah: Excellent, Tommy. We do want to leave time for Q&A, and are going to feature more of your stories and insights on our microsite that we'll share with the audience. So this will wrap up the presentation portion and we'll open it up for questions in a moment.

Thank you very much, it's been my pleasure. I'll happily answer any questions anybody has. This is my passion, I hope you've been able to determine that through what I've said, and how I've said it. One of my biggest goals in my life is to share, because I believe if one person has something that can help make another person's job easier, it's their job to share it, and that's what it's all about.

Sarah: Ok thank you Tommy. We are going to be opening up for questions for Tommy in a minute. You can submit questions via the Chat Panel.

While you are preparing and submitting your questions, a few reminders:

We have several exciting events coming up in March. (mention EBB, make it clear it's exclusive but offer up to invite executives. And mention March webinar topic. You can register for the entire webinar series at the link below and we'll also include a link to do this in our follow-up emails from this webinar.).

We also had the chance to have Tommy speak to some additional topics that we'll be featuring on a "Real Estate in the Cloud" microsite. We'll be sharing these with you in the coming days and this includes some really interesting stories and insights Tommy shares around: (list the vignettes on microsites you want to feature).

And with that, we'll open it up to questions.

Microsite – Bonus Content – 6 Additional Vignettes for microsite and nurturing

Why online technologies today are like air conditioning 70 years ago (Microsite Vignette)
Tommy Russo, CTO of Akridge in Washington, DC, shared why online technologies today are like air conditioning 70 years ago.
~~I guess~~ in the '40s when they had the ability to put air conditionings in buildings they went to a building owner and said, "~~Hey,~~ let's put an air conditioner in the building," and the owner of the building said, "I'm not going to spend $1 million to put an air conditioner in the building. They got windows. Open the window." You know, you wouldn't build a building now without thinking about that first. Well, that's where technology's come in. You've got to start thinking about it from the start of construction, because that's really what's going to make you make that building more desirable to people, make the building cost you less, work better, last longer, and make everyone happy

Using online technologies to save money on energy management (Microsite Vignette)
Tommy Russo, CTO of Akridge, discusses using online technologies to help reduce energy costs and help his tenants save money – and even let the tenants know what they have saved.
My engineers every day in all of our buildings get their consumption from the day before, so every building knows how much energy they consumed in their building from the day before, whether it was higher or lower than it should've been based on historical averages, and if it's higher they need to figure out what they did wrong, if it's lower they need to figure out what they did right so they can duplicate it.

Taking those figures and going to the end of the year and finding out how much we saved and then dividing that out among square foot and going back to the client, that's what they like, because, let's be honest, ~~you know,~~ the people who are writing the checks are the ones that are making the decisions. (from elsewhere) The clients in the building at the end of the year pay the bill, so if we can reduce consumption in the entire building by managing the plant via collecting data and looking at real-time data, look at the value there. It's huge!

An example of automating building operations (Microsite Vignette)

Tommy Russo, CTO of Akridge in Washington DC, shared an example of how bringing his building online helps him automate building operations.

From a property manager's perspective, we do quarterly building inspections and we take teams of property managers from other buildings that each visits somebody else's building, so it's a fresh set of eyes. For the last ten years how they've done it is they had a checklist, they had a clipboard, they'd walk into the front door of the building and start checking things down and writing notes. Well, so we created an application for that, ~~as well~~, so now the same type of process but with a little bit even newer things, ~~which I haven't integrated back with the preventive maintenance yet,~~ where the property manager has the ability to add pictures and add audible. So instead of actually sitting there and typing in "The front door squeaks when it opens" she could dictate right into the device "The front door squeaks when it opens." We then have software that will take and convert that to text, or we save the audio file, because a lot of times people will say things and forget them, they won't write them down because they're too complicated. So what we're trying to do is automate every single process. You know, we've empowered every one of our employees from a [porter?] level to an engineer level with electronic communication, which is huge. That's where I see the biggest change making. We've taken the time it takes our engineers to report to a call down to under five minutes, which, ~~you know,~~ if you can make a client happy, great.

Changes to the industry and technology management (Microsite Vignette)

Tommy Russo, CTO of Akridge in Washington, DC, discusses changes in the building industry around the role of a building's technology resources.

The big paradigm shift, ~~[and that makes for?],~~ is silos within the building and within organizations. So five years ago~~, let's say five years ago~~, you had the engineering shop, you had the property management shop, and then you had the guy who came and fixed your computer. Now, if you can't get through the paradigm shift of you're all in the same building under the same roof going for the same goal, it's going to be very hard. So where I see the industry right now is we're starting to get rid of those silos. We're really starting to see how important it is, and I've seen it in some big companies and I've seen it in some small companies, but as a whole, if you're only looking at your technology department as the people that fix your computers, you're stuck, because they're not. They're the guys that can help you automate things. If they can't do it, they can find people that can do it.

The importance of data management in bringing your business online

Tommy Russo, CTO of Akridge in Washington, DC, discusses the importance of data management in bringing a building online.

So the first and most important thing is data. Data is the king. You could have all the best ideas in the world; if you can't get the data out of the system, it's for naught. So how we started was I started addressing every device that I could.

(from elsewhere) You know what enables that? Connectivity, because if you don't have the connectivity it doesn't work. You have to be able to take all the data into a central location, you know, putting it on the net, for lack of a better term, or your infrastructure, your intranet, and making it available.

Using data normalization and triggers to manage equipment

Tommy Russo, CTO of Akridge in Washington, DC, discusses how his building uses data normalization and triggers to manage their equipment.

So when we normalize the data we're looking for abnormalities, so I can look at a floor, or I can look at the draw of a compressor on the third floor and see that that compressor is drawing 5.5 amps, so my software is sitting there looking for that to draw 5.5 amps, so now it's 100 degree day outside and it's drawing 6.5 amps. We've set parameters for high and low what that piece of equipment can do, and ~~on a sidebar from that, it's amazing -- as you do new installation everyone would give you all that data. Our hard part was finding that ourself, actually reading the face plates of motors and finding things. So back to the story,~~ I can see that now that motor's drawing 10 amps, so it's double what it should be. I am taking that information and saying, "Hey, I am over the threshold of 8.5, which is where we've set the threshold to be. Imminent failure is going to happen or something is not right." At that point we are **notifying our engineers via e-mail or text or an alarm**, and our engineers then have to report to it. So addressing -- we've looked at it on a device by device level, and saying that sounds like it'd be really hard, but if you really look at a building you only have -- you have core components that are, for example, air handler rims. You may have 50 of them in a building but you really only have one or two different types of them, so you're only really creating it once and then you're multiplying it by the number of devices you have. VAVs, same thing: when you get into a VAV, you design it for one VAV and then you just multiply it out through the entire system. So we're looking at the data coming in, so it's coming in as VAV box number 101 with the ten points we're listening to or monitoring for outside of that. If any one of those make a variance, we're notified.