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# A CFO Perspective on Green Data Centres

*Video Case Study Transcript*



From the Green IT Innovation Series

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## Video Case Study Transcript

*This document contains an edited transcription from a video interview with Glenn Vollebregt, Senior Vice President, Finance and Administration for St. Lawrence College. Our interview was held at St. Lawrence College's Kingston, Ontario location on April 16, 2010, and conducted by Michael O'Neil, Chief Content Officer for IT in Canada.*

**Michael O'Neil:** Hello and welcome back to the IT in Canada Video Network. I'm Michael O'Neil, chief content officer for IT in Canada, and I'm joined again by Glenn Vollebregt, Senior Vice-President, Finance and Administration for Saint Lawrence College. Glenn, thank you so much for joining us again.

**Glenn Vollebregt:** Thank you.

**Michael:** We're here to talk about a green data centre project that St. Lawrence College has recently initiated. Before we get into the green details though, can you give us a brief description of the project itself?

**Glenn:** Sure. As a college, we've been embarking on probably about a three-year technology refresh, I would call it, with all three of our campuses. We have campuses in Kingston, Brockville, and Cornwall, so we span about 200 kilometers. We were at a situation where we had basically two or three different types of data centres scattered throughout, which can happen in an academic institution. We were having some power blips and power outages, and it was wreaking havoc on our operating systems, as you can imagine.

That was the genesis for why we needed to move forward with this project. What we wanted to do is a couple things at the same time: to centralize all of our technology, and at the same time, take advantage of virtual servers and really reduce the number of equipment we had out there.

So we scoped out a data centre that really reduced our servers from about 70 to about 12, and then brought in a direct power source, cooling...modular, it was scalable, and we also were able to provide ourselves with a generator in case we had a power outage.

We have to have a 24/7 shop, and we were experiencing some downtime. Now, we're able to run even if there was a



Glenn Vollebregt, Senior Vice President, Finance & Administration, St. Lawrence College

power outage for three or four days. Which, if it's longer than that, then we have a bigger problem. That was why we needed to put the project together and the scale and scope of it.

**Michael:** Well, thanks. Centralize, virtualize, consolidate – those are common terms in the IT industry. But when we were speaking about this project in our preparation for today's interview, I was really intrigued by the fact that you took a total cost of operations or a total lifecycle approach to assessing the data centre. As IBM's Bernie Oegema has pointed out, this kind of approach really supports green because an evaluation that includes energy costs, which are the biggest source of costs over time in a data centre, will tend to favor an energy-efficient approach.

How important, as you were putting together the numbers that justified – and you paid for this out of operating rather than capital budget, right?

**Glenn:** Right. Yes.

**Michael:** As you were trying to justify this in operating expenses, how important was the power savings component of your analysis?

**Glenn:** Well, it was very important. As you mentioned we used our operating dollars, so we needed to get a return on it. As a CFO, you do get to see all the various different costs from a corporation. We have facilities costs and technology costs, which are probably two of the largest in an academic institution. It was very important for us to do a full total cost of the project.

We looked at the traditional outsourcing. We looked at a number of ways to accomplish this. But in the end, when we took the total cost of operation over a life period, this was the best route for us to go.

**Michael:** You also mentioned modular and scalable through the conversation. Can you talk about why that was important to your approach?

**Glenn:** Well, that was very important for us. We wanted to build something this big, but can only afford something this big.

**Michael:** [laughs]

**Glenn:** So it was important for us that it was modular, and that it was scalable, and that we had the ability to do more. In particular, do more green when possible in the future when the funds became available. So for us that was very important.

**Michael:** So you basically built a framework, and then you populated it with the UPS and cooling and servers that you need today.

**Glenn:** Exactly.

**Michael:** And then as you scale out, what green opportunities do you see?

**Glenn:** We needed to do that because we, as a college, have grown about 23 percent in the last three or four years, and we're still growing. As a result, our technology requirements are growing. But there are other things that we want to do. We want to do a little bit more on heat recovery and those types of things,

which I can see happening in the next year or two. If you have a good plan and a good design that's scalable, and you've thought for the long term, it allows you to do those things.

**Michael:** I think heat recovery is a really interesting point there because that's one of those next-wave technologies in green that probably will become more common and show you more different ways to deploy it over time. Do you have targets in mind for how you'll...?

**Glenn:** Well, not so much targets, but the fact that we're going to do it. It's not "if" or "when," it's "we are." That's one of the reasons why it's important to make sure when you're doing these kinds of projects, at least in my perspective, is that you have a whole bunch of different players at the table. For us, it's important you have the facilities folks there, the engineers, along with the technology people, along with the accountants. As I mentioned earlier, the whole management team needed to buy into this because it affects everybody.

**Michael:** So you need to, as a senior manager yourself, assemble facilities, engineering, accountants, and IT and... [laughs]

**Glenn:** Which in the past it might have been the CIO that would do this and really take ownership of this project. Now it's a team of people that have taken ownership over this project, and I think that's the biggest change in the last little while.

**Michael:** And I imagine if you want to tie in energy and heat recovery in a meaningful way, you have to bridge that gap between IT and facilities.

**Glenn:** You have to for sure. They have to work hand in hand; they have to work in good partnership. We're very fortunate. I feel we have two of the best ones around, so it was good for us.

**Michael:** The fact that they are talking to each other is great.

**Glenn:** That is a start. [laughter]

**Michael:** That is a start. I want to get to your words of wisdom as a CFO both for your fellow CFOs and for the IT managers that come to you looking for budget approval. But, before I do, CFOs are known for upside in and downside analysis, and in keeping with the CFO theme, why don't we start with the downside...How important was it for you to address possible risk factors, both operational risks and also green-related risks like regulatory or reputational, in your decision to proceed with the green data centre initiative?

**Glenn:** As a CFO, you are always looking at a number of different things. You do have to look at the regulatory things, you have to look at insurance and you have to look at risk. One of the things that drove this project at the beginning was risk. That's what drove it at the beginning. You always need to make sure that you are looking at the total cost of the project. You are looking at lifecycle costs. You can get burned very quickly on a short-term decision.

It's no different than when we talked about this, that it needs to be modular and scalable. If you are not careful you can be in a whole new investment two years down the road.

So, for us it is very important. I think, as a CFO, you have to look at the total cost of operation and how it fits into the cost structure and the college as a whole.

**Michael:** I think that is a great point. With respect to upside, were there things like increasing the attractiveness of St. Lawrence College to students or the staff or the availability of grants or credits for energy efficiency that played a meaningful role in your decision?

**Glenn:** I think, in terms of the upside, we pride ourselves on being a green college; we pride ourselves on sustainability. If you are going to do that, and students will call you on this, you do have to “walk the talk.” How can you do that and then have technology all scattered all over the place? You are not doing it efficiently. Most folks know that technology is a huge user of power. So our data centre, we wanted to make it not only functional and effective. We want to make it attractive as well.

So we relocated it into an area where it has high student traffic, so they can see the low lights blinking off in there. People will ask questions and we will tell them about it. We will tell them what we are doing with our data centre. So I think it is important, from our perspective, to highlight that fact as well.

**Michael:** But you didn't actually get any grants or credits on energy efficiency as part of this project.

**Glenn:** No, we did not. Again, a good green project makes good ROI sense now, too.

**Michael:** I think that is important to understand – is that even in the absence of government incentives, you can still make, as a CFO, a financial case for it.

**Glenn:** This project stood on its own.

**Michael:** And delivered, if I remember right, a healthy IRR.

**Glenn:** A very good, healthy IRR.

**Michael:** That is terrific. So, let's wrap with some words of wisdom then addressed to two different audiences. First, based on what you have experienced with the project, what advice would you give to other CFOs who are faced with the need to contemplate a major data centre investment?

**Glenn:** My advice to the other CFOs would be to make sure you have got all the right players at the table right from the very start. If you are getting a data centre project, make sure that your facility folks are there as well. Make sure you have accountants there as well. Make sure you have program people. They need to understand. Whatever your core business is, they need to be as part of this decision as the technology officer.

So for me, my advice would be to make sure you have got everybody on side. Technology doesn't stand on its own. It is tied in; it is integrated into every aspect of the business. So make sure that you have all the players in the room together at the beginning.

**Michael:** And to your point about the program people being bought in -- you aligned the incentives and the measurements around power across different departments to help them to understand why they'd be at that table...

**Glenn:** So they were interested!

**Michael:** Thanks. Let me just move on, then, and address our most common visitors who are IT managers who would come to someone like you saying, "Please approve my budget for a new project." What would you advise those folks to focus on in terms of business metrics or hurdle rates to make a compelling case to a CFO as to why they would invest in green IT?

**Glenn:** That's a good one, and for me, that one is very simple. That is "Don't talk to me about the technology," because it's, "How does that relate to your core business?" How is this data centre, or whatever the project is, how is it going to affect our students as a college? That's our customer and that is our core business. Talk to me about that, and then we'll talk about what the return on an investment is, the paybacks in the investment, because it has to support the core business.

And yes, the technology has to be up-to-speed, it has to be appropriately sorted, and fit, and all that stuff, but it is not about the technology. It is about "How is it going to serve your customer?" and "How is it going to further your business?"

**Michael:** And when they bring a business case to you, is that the primary goal? "We need this technology to serve these evolving needs in our student population, or our business population?" Or does it also branch to, "And if deploy it properly, we save money on OPEX through energy [conservation]?"

**Glenn:** Absolutely. It is two-fold. First, does it serve a need? Once it serves a need, this is the return on it. So, it is both of those metrics. But you will notice not one of those questions was about "What kind of server is it?"

**Michael:** I know you worked with IBM on this project. What role did they play in helping to persuade you that this was a good investment from an OPEX, from a CAPEX, from a green, and from a responsiveness to your student body perspective?

**Glenn:** I think IBM was instrumental in the role that they played. First of all, our primary contact with IBM on this project was an engineer. That ties into what I've been talking about – IBM was able to bring the engineering, the green technology, green initiatives, and marry it with the technology and the business aspect of [the data centre initiative]. For us, it was like having a great facilitator in the room to manage all these different pieces. They brought forward the experience and the education and the background to the table.

It was tremendous, actually. It was my first experience with the construction of a data centre. I remember at our first meeting, I was really quite surprised – and pleased – that the person that we were dealing with was an engineer.

**Michael:** I think that's a good point. Data centres get built somewhere all the time. But in any one place, they get built every 10 or 20 years.

**Glenn:** That's right.

**Michael:** It wouldn't surprise me that talking to a supplier would bring some external expertise on that subject. Did you also take advantage of IBM's understanding of how a data centre like this can help you to better align with student needs, with business needs, or reference accounts that you could rely on?

**Glenn:** Yes. That's a great point, actually. One of the things, I think, that IBM brings to the table is they do look at the business need, and how does it fit to your business model; how does it fit to your customer base. That's what they bring first. Technology comes after. It's first "solve that problem," and then figure out, "OK, what kind of technology do we need to solve the problem?" They were very good. The first question that they'll ask is, "Why are you doing this?" Not, "let's get into the data centre, let's get into the construction of the data centre" – not at all. "Why are you doing this – how will this benefit your customers?" I think that was a tremendous way to start the project.

**Michael:** As well as aligning to your guidance to IT peers [when approaching a CFO about an IT project], "don't talk about the technology – talk about the business."

**Glenn:** Exactly.

**Michael:** Right. So you went from 70 to 12 servers without asking what kind of servers they are. [laughter]

**Glenn:** That's right. I could not tell you what kind of servers they are. All I know is I understand [from] 70 to 12. [laughter]

**Michael:** Right. Thank you so much. And for the IT in Canada Video Network, I'm Michael O'Neil and we have been discussing the CFO's perspective with Glenn Vollebregt, the Senior Vice President, Finance and Administration for St. Lawrence College. Glenn, thank you so much for joining us today.

**Glenn:** It was fun. Thank you.

**Michael:** Thanks.