



Stratford City Hall

Photo motionblur

Intelligent Connectivity at the City of Stratford

BY PSD RESEARCH

Communication within and between organizations is no longer primarily via face-to-face interaction, non-verbal cues, or even written correspondence. Communication today is increasingly wrapped up in the exchange of data and information over the internet. Verbal communication in an organization can be enhanced through public speaking lessons or perhaps through ice breakers that allow individuals to feel more comfortable communicating with one another. Written communication can be enhanced through writing courses and a reliable postal service. But with data transfer now burgeoning as a form of communication in most governments and businesses, communication is most effectively enhanced through improved internet connectivity. A faster and more reliable connection means quicker and safer data transfer. PSD spoke with Mayor Dan Mathieson of Stratford Ontario regarding the city's efforts to bring state of the art connectivity to a growing and evolving municipality.

This year, Stratford was named as one of the Top 7 Most Intelligent Communities in the world as a result of their innovations in internet connectivity, allowing data and information to flow freely in and out of their businesses and local government. PSD also spoke with Paul West, the Business Development Manager of Rhyzome Networks, Stratford's city-owned enterprise that manages the expansion and delivery of their internet services. Both Mayor Mathieson and Paul West attribute a large portion of Stratford's recent growth and development to the city's harnessing of connectivity to attract and retain businesses, and improve city-wide communication.

PAUL WEST, RHYZOME NETWORKS

Why is connectivity so important for communities today?

Connectivity is an economic enabler that is a requirement for business. There is an increase in demand for bandwidth, speed, and mobility—the ability to be connected wherever you happen to be. To me, it's an economic development platform that strengthens the retention of business in a community and increases the likelihood of attracting businesses to a community. For example, the rural medicine program that runs out of Seaforth [Ontario], but is part of the Huron-Perth Health Alliance, deliberately creates an environment where physicians graduating from the University of Western Ontario are shown Stratford in a positive light. Come to our community and you are going to have a fibre connection to your clinic, home, and hospital, and high speed Wi-Fi wherever you are. So if you're a graduating physician trying to decide where to set up your practice, many will choose Stratford over another community because of mobility and bandwidth speed. The Royal Bank also selected Stratford for their newest data center, and it's huge. It's a 450,000 square foot, 500 million dollar investment. They chose Stratford out of 200 communities in Ontario for a variety of reasons. They looked at reliability of power, diversity of power, climate, water for cooling, local factors like culture, quality life, taxation, and then they looked at connectivity. Connectivity speed to our community and around our community ultimately allowed us to attract the likes of a Royal Bank data centre to Stratford.

Keeping businesses in a community is also important. A business can choose to move somewhere else, in particular if there is not enough speed and connectivity to support their business requirements. With fibre connectivity throughout our entire community, we were able to increase the speed of broadband access and keep businesses in our community.

Why is it necessary to have both a wireless service and a fibre optic connection?

There are two ways in which businesses and citizens interact with the internet. We do it in one of two places. We do it at our desk—whether it's at our home, at our school, or at our workplace—where it's fixed connectivity (most efficiently delivered through a fibre wire). The other side of that is mobility. Mobile connectivity has the same requirements but, historically, it has been through a cellular connection, which carries with it certain speed limitations and expenses. When those dollars are spent, they leave Stratford and go to Montreal or Toronto or one of the wireless companies' head offices. There are 10,000 homes in Stratford and over 2000 businesses that spend on average \$200 a month for voice, video and internet, and those are dollars that leave our community. What we are trying to do with our Wi-Fi investment is to give local citizens an option to spend their dollars locally, enjoy higher speeds than they can get on cellular, and enjoy mobility anywhere they are in the community.

Did Stratford deserve to be named as the World's Most Intelligent Community by the Intelligent Community Forum?

Going through the exercise brought together various aspects of our community, the business community, the financial community, the municipal users, our cultural community, and the schools and the hospitals. So when we formed our Bid Team of 15 or so people, it gave us a reason to work together on a common project. We shared new ideas and built new relationships. That alone made Stratford a winner because all of the sudden we were working together and trying to strengthen our community. As far as making the Top 21, that validated some of the unique elements of the investments we've made. When we made the Top 7, we were thrilled. The Top 7 is about selecting communities around the world that can be profiled as case studies for other communities that want to make the same investment. So all of the Top 7 cities were winners because they got their brand and message on the world stage. The Intelligent Community Forum really didn't want to name a number one city. They would have preferred to leave it as the Top 7 as a representation of world communities both big and small, with some just coming back from economic downturns. So I'm not feeling that Stratford failed, but that we won along with the other Top 7 communities.

What further technological innovations do you see improving the way cities function in the future?

I think it's information sharing. How citizens gather information and are informed. Once connectivity is achieved, that's not the end point. The end point is the experience, the application, the interaction. So I can then take a sports and rec program like swimming or children's dances and I can represent it through this broadcast platform and reach everyone, and then let those people reach back to me. Right now I might have to go downtown to buy tickets to an event, but tomorrow I might learn of it online and then register my child for it online. So now my ability to know and engage as a community citizen becomes an easier more swift engagement. If I'm a visitor from outside Stratford and I come in to the city and see a digital screen—a kiosk or on my smart phone or tablet—I can touch it and interact with it to find out what festivals are on and what attractions I might be interested in seeing. These are the new forms of communication.

What is the first step a community should take to improve its own connectivity?

The first question should be whether they want to be in the data utility business. Some have that in place and can say yes they want to be in the business to strengthen their local economy, just like the hydro and water systems. If they see data as a utility, they might be in the position to enter that market, maybe in partnership with a local carrier like a water or hydro company. There are many ways to

do it, we just happen to own our own [service delivery enterprise]. Chattanooga, Tennessee, another Top 7 Intelligent Community, has the exact same model as Stratford. Their hydro utility is a partner in data utility to provide connectivity throughout the City of Chattanooga. The Eindhoven Region in the Netherlands, [the Most Intelligent Community of 2011], didn't have the same model. They have partnerships with various carriers, but they are at the table with those carriers to influence them as to how to strengthen their regional message and their Brain Port—their digital park. It's a matter of asking first whether you see that responsibility in your own community.



Eindhoven, Netherlands

Photo dtsomp

MAYOR DAN MATHIESON, CITY OF STRATFORD

What did it mean for Stratford as a community making it into the Top 7 list for the Intelligent Community Forum?

It gave us an opportunity on a broad scale to communicate a transformation in our local economy. It allows us to talk about key investments we've made, whether it be at Rhyzome, Festival Hydro, or the City, in regards to education, investment, and future employment.

Did you get to speak with any of the other six communities that made the Top 7 list?

I got to speak to all of them and I was very impressed with some of the things they've done. While we have a very strong story to tell, there are many elements of community development that we've learned from them which would be strategic for us to consider in our own position. We were all together at the Intelligent Community Forum over the course of three days and there was some time set aside for us to chat and meet.

Why is connectivity so important for communities today?

Connectivity represents today what the railroad was over a hundred years ago. Without broadband communication, you're gonna find that your community is shut off, not only from information, which is key for decisions and community development, but also in the way commerce and business are carried out. Even manufacturers in our community today that do traditional manufacturing use the fibre optic network to transmit their data back to their parent company, or their suppliers, or of course, their customers. That includes everything from mould and tool and dye design, to quality assurance, to the programming of the robotics. And it's becoming an expectation of everybody in that industry alone. If [connectivity] is the expectations, it needs to then permeate through our education

system. It needs to permeate through our community so that it is completely inclusive, so that everyone has the knowledge and opportunity to learn about it and of course use it.

How was Rhyzome Networks, a subsidiary of the City, established in Stratford?

Ten years ago, when many communities were selling off their hydro assets, the City of Stratford made the strategic decision to not only retain our assets but to purchase the assets of six other communities. We had a fibre optic loop throughout the city, and overtime we have seen the true value of that network come forward as it started to permeate more aspects of community development. It taught us that we needed to monetize that and treat it like the very valuable asset that it is. So instead of having it interlocked in a hydro company we needed to put it out in its own entity, to create its own enterprise, and to really focus on what it needed, which was business development and strategic partnerships to make it grow.

Did you face any challenges in moving forward with the project?

No, we have a very strong council here that believes in innovation. Stratford has had to reinvent its economy no less than five times in the hundred and fifty-seven year history of the city. Because of that, people in Stratford are used to making strategic decisions with a long-term vision. It was clearly laid out for them. People believed that the intelligence and strategy behind what we were doing was strong and positive and so they supported it. To put it into perspective, the City of Stratford has committed \$10 million to the University of Waterloo Digital Media Campus to be located in the city and a further \$5 million for the land. So a city of 32,000 people has already invested heavily in the digital economy. To that end, this was just a continuation of that vision and investment.

What advice would you have for another community looking to move forward with a similar program?

First of all, you need to understand the challenges and underlying benefits that will come from it. This transformation of the economy is happening at a rapid pace and is going to represent a lot of change over time. Some people of course aren't very good with change. They need to trust in their decision and understand that it's a longer term play. I think people often look for a quick return on these things and it's just not going to happen. I liken it to cell phones. A product cycle for a cell phone used to be a couple of years, now if there isn't a new smart phone on the market in a couple months, you're lagging. That is the pace of technological change. People have to be prepared for that.

What's next for Stratford in terms of technological innovation?

We're now looking at a partnership with a Palo Alto California company called LeoNovus. We'll be a test site for using digital fibre to deliver television to the home using the internet. We're also looking at creating our own phone company using our digital fibre. We have our own network now for dual-band phones, which use Wi-Fi in the city and automatically switch over to 3G when you leave the city. We are going to start selling those [phones] with our private sector partners. We are changing the way we look at things in the economy. We are not just going to be a purchaser; we are going to be a provider. **PSD**