The New Network Podcast

Success Story: How Big Data & Fiber Can Transform your Business

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These days, it’s not a stretch to say a business is only as good as its network. With the right infrastructure in place, your company is ready to collaborate, innovate, and connect with customers and suppliers. On the flip side, when network performance slips, your organization loses its edge. To thrive in this new network world, you need connections that can support anywhere, any-device access for the applications that matter most, like streaming video, big data analytics, and unified communications. And you need a network that can scale to support rapid growth. According to the latest forecast from Cisco Systems, IP network traffic will grow 300 percent over the next five years. Likewise, broadband speeds are expected to double to keep up. Now when you drill down further into these numbers, you find that there are three kinds of traffic that are growing more quickly than others. It’s important to understand these three trends and prepare accordingly.

First, busy-hour Internet traffic is increasing more rapidly than average traffic. That means you need to be sure your network can scale to accommodate peak demand periods. Otherwise, you may not get the performance you need when it matters most, during those critical business crunch times.

Second, metro traffic is expected to grow twice as fast as long-haul traffic. It’s a reminder to keep an eye on the performance of your wide area network connections among business sites.

And third, more than half of all IP traffic will come from non-PC devices within five years. Besides mobile devices, we’re talking about video cameras, sensors, and a long list of other network things.

Smart companies are investing in network performance now to drive innovation and increase their business velocity. In today’s podcast, we’ll learn from the leader of one of these businesses. Stealth Monitoring is a cutting-edge company that’s leveraging new network infrastructure to drive its business. Based in Dallas, this family-owned business provides remote video-surveillance services to prevent and deter crime for hundreds of customers across North America. Over the past five years, Stealth Monitoring has topped 50 percent year-over-year growth. Today, real-time video streams flow into their operations center from more than 7,000 security cameras. Since 2011, the company has
partnered with Time Warner Cable Business Class to scale its network. David Charney is Stealth Monitoring’s president.

David Charney, it’s great to have you with us here today.

David Charney:
Thanks for having me today, Michael. I appreciate it and look forward to a fun conversation.

Michael:
So David, you’re every entrepreneur’s dream. You’ve caused a disruption in your market, you’ve leapfrogged established competitors, and you’ve taken a local family business and grown it into a national player. What’s driven your success?

David:
You know, Michael, God bless America. It’s a fun place to be in business. It’s an interesting time in the world, and security is something that every company and every person thinks about. So we’ve been fortunate to create a business that’s based around some very, very interesting technologies that allow us to help communities around the country.

Michael:
So folks who are listening might have a picture in their mind of what video monitoring looks like from maybe something they’re seen years ago. What’s it like in this day and age with high-performing networks, high-definition video cameras, and the power of data analytics?

David:
Nowadays, as you pointed out, HD or high-quality megapixel cameras not only are much more sophisticated and powerful, but the quality of the images are unbelievable.

Why the Stealth Monitoring story is different is not just because we help our clients design and install and service cameras throughout the country, but it’s the way we watch them. A complete game changer is using the Internet in real time throughout the country to centralize that video information using analytics both on the video and other data metrics in order to be proactive. Our specialty is being able to watch something that looks suspicious and take action in real time. Whether it’s sounding a speaker and trying to scare off two kids on skateboards in the back of a property to something more serious, a true burglar with a bad intent, we are able to do that throughout the country and many, many, many times a night we prevent crimes. So that’s the differentiator.

Michael:
Back down from the industry into your business, I heard you point to two factors that you say have been game changers for you. One is the power of the Internet, and the second is the power of data analytics. Can you talk about your infrastructure, what you do for Internet connectivity and your analytics solutions, and how both of those help drive your business, make smarter, better, more efficient decisions and serve your customers?

David:
Absolutely. When you’re listening to what Stealth Monitoring does day in and day out for hundreds of customers, you think we have just people-watching cameras. And that is sort of the premise of what we do. But you can’t do it at the scale that we do it without having very, very sophisticated algorithms, custom-built databases that improve efficiency, analyst teams, developer teams, database teams, all optimizing our master formula and our secret sauce to do it in a way that no one else does. So what does that entail? That entails, first of all, we certainly have very serious Internet pipe with all kinds of redundancy: redundant power, redundant Internet, all with real-time switching over with seamless integration, essentially.

In the nine years we’ve been in business, I don’t think we’ve ever missed a night of monitoring, and that’s a testament to the different providers we use. Certainly for our house Internet, meaning our big pipe, we use Time Warner Cable Business Class, and they’ve been an excellent partner for us, being both strategic in helping us design for the future as well as getting the Internet speeds for our constantly growing needs. It’s one thing when you just sort of think about what you need today because it’s easy to measure, but it’s very hard when you have to predict how much you’re going to need over the next year or two, and you have to think ahead when you’re in the technology business because the growth curves are exponential.

To give you a little bit more on the analytics, obviously with video feeds there’s this constant called video analytics, which is where a computer is studying the pixel-by-pixel change across the camera signal in real time, and then is making somewhat of a decision to get rid of the noise and send back what is very important. Well, that is a fundamental part of how we create the efficiencies we do.

Michael:

While I was researching your business, something fascinating that popped out at me was that you have learned to actually use the growth in bandwidth demand at your business as a metric for forecasting the growth of your entire business in general. Can you speak to that? There’s no better highlight to me of the power of the Internet age, the Internet business than actually bandwidth becoming a metric that drives the whole company.

David:

Absolutely. So we pride ourselves on all kinds of data. One of the projects I worked on over the last year was trying to get optimal performance out of every department in our company. When I did that, it’s sort of like an internal audit. I used my audit experience to essentially build a ratio, and what I was able to do was figure out, for this amount of cameras, this is my according staff, this is my according bandwidth, this is my according back-office needs, etc., etc. IT help desk resources, etc., etc.

What was really interesting is, as I connected the dots and as I tried to figure things out, I found that using the Internet growth trajectory, because we have that history, is probably the most successful way I can possibly predict what my future staffing needs and resources, and even cash flow needs, are. So we have actually found that measuring our Internet with very heavy precision and then trending it provides the best likely scenario for what our future growth curve is.

Michael:
And Internet being a key predictor for growth, obviously being able to scale and grow your Internet swiftly and cost effectively is essential. How has the quest for scalability and supporting growth factored into the decisions you’ve made for your service providers and the technologies and infrastructure you’ve deployed?

David:
It’s very important to not think of what you need now or even six months from now. It’s important to sort of architect for five or ten years from now and then work backwards.

With the day and age we are living in, with Internets and with the speed of growth, it is possible that you drastically outgrow what you’re expecting, and that’s why you have to think much more aggressively what the growth possibilities could be.

Michael:
And what’s the experience, then, with the growth of Internet traffic for your home office and your network control center in Dallas? I noticed that recently you had a major upgrade to the Internet capacity there.

David:
Certainly we’re measuring terabytes of data moved weekly, we’re measuring average bandwidth used daily, and we’re measuring petabytes-per-year worth of data movement.

Just to give you an example, Michael, I think this might help you, the cameras inside of the local area network, essentially the camera network that’s on our client’s site, an individual 1.3-megapixel camera can get up to as much as 10 megabits per second. Now when we have clients that have two cameras in a baseball stadium, it’s not of much concern. But when you’re installing hundreds of cameras for a client’s location, you’ve got to have a pretty serious network at the client’s site. Obviously, the video-analytic engines that we run at the client’s site is very critical to knowing what kind of video data to send back to us in real time in order for our business to scale.

Michael:
And to clarify that for listeners, it sounds like what you’re saying is that although there’s huge bandwidth requirements within the customer premise, the customer that you’re working with their video cameras, you have special analytics tools that are able to crunch that data at the customer’s site, and so therefore it’s not all getting back all to your network.

David:
What we do is buy a high-quality piece of glass, a high-quality camera, connect to that high-quality network, store it all locally, process the video analytics at a high-quality video feed with a lot more horsepower, and then decide what comes home to Dallas to be monitored in real time and in low stream. So that kind of covers our philosophy.

This is not all about just video feeds. This is also about data analytics, data warehousing, and business intelligence. We have built data sets that come back to us in close to real time, within minutes, and we can tell the status of every single network object. That means if somebody weed-whacks the camera in your parking lot and hits it with a weed whacker and cuts the wire, within minutes we have reports here that tell us that camera 7 is down. Now if it was just a blip in power and we start that camera or upgrade the firmware, we do that all automatically from Dallas with one of our analysts.
on the help desk team. If it is truly weed-whacked, then we know that camera’s down and we dispatch technicians to go repair it.

So here we are with unbelievable service levels we can create for our clients because of all of that data we’re sending back to here and looking at different exceptions and changes with a different lens than other people would normally be doing.

**Michael:**
*So clearly, network reliability and redundancy are essential for your operations. What difference do you see with the level of performance you have at your home office and your data center in Dallas with some of the different providers you work with for customer sites around the country, and how do you work with that?*

**David:**
Sure. So great question. The network service levels we have here at our home office, I don’t think can really be compared to any of our clients’ Internet connections. We’re putting in a true enterprise redundant solution. We have entire teams that study the results, both to design them and maintain them. We use outside advisors and we use Time Warner Cable Business Class’s resources to try to make sure we’re doing things the way we need to, to get the optimal redundancy.

When it comes to the client sites, we obviously can’t expect the same service levels from their Internet side. But what it means is, it means we need to have more tools here at our side to be able to identify problems with the client’s side, and also help the client solve the problem. So it’s one of these things where we become their trusted advisor, and we will work with whoever the ISP is for that local market.

**Michael:**
*So David, you talked about bandwidth growth in your business. Can you give us some numbers about what that curve has looked like over time?*

**David:**
Sure. When we started out, we were using 100-megabit circuits and we had two different providers, and when we needed more Internet, we would increase our Internet strictly based on price. We would see which provider could get us additional increase and we would increase two different Internet connections, and we actually ran our business on two separate main pipes.

As we started to grow a little bit bigger and as we got to about 2010, it came to our attention that we shouldn’t just be scaling little chunks of Internet at a time. We needed to take steps with bigger chunks. So in 2011, we made the decision to go with a pretty serious bandwidth connection. We went with redundant fiber 500 dual, 500-megabit Internet connections. That lasted a little while. And I’m glad to say our company growth actually hit those numbers within two years, and we went further forward and increased it to dual gigabits up- and download connections. Now we’re finding that we’ll probably grow by a gigabit every two to three years, so unbelievable growth.

**Michael:**
So really, you see a huge strategic advantage in being able to select a platform that’s able to grow immediately and that you don’t have to revisit, pull out wire, rewire, and basically try to change the wheels on a tire—change the tires on a car while it’s rolling.

David:
I fully agree with that. I don’t want to be messing around with, and having to take small baby steps, on fundamental things like electricity and bandwidth. So we don’t joke around. You over purchase and you don’t have to concern yourselves with the growth trajectories as much, and you can sit back and be more comfortable and focus on your day-to-day business instead of looking at this as a distraction.

And that really opens us up to bigger business opportunities. Instead of me selling to one and two and five location-type clients which is how we started, now I have the opportunity when somebody says, can you handle adding fifty new sites this year, right away, I can do that without even flinching now. So I think it’s important to stay focused on your core business and making good, smart, scalable decisions on network bandwidth and network design up front save you time getting distracted from your core business.

Michael:
It sounds like it really buys you a velocity advantage.

David:
I think without doing anything other than making a phone call and paying a bill to Time Warner Cable Business Class, I think I can double my capacity right now, and there doesn’t even need to be a design discussion or any changes of any hardware. So I have 50-percent scale waiting right behind me as soon as I’m ready financially at what my customer base is. So that, right there, bought me a lot of time and a lot of focus on our core operations instead of some of our backend infrastructure. So it is worth the value to have very critical things like your bandwidth and your network and your design taken care of correctly the first time, in me allowing our team to then focus on the real day-to-day business with what we do for a living.

Michael:
In your business, helping customers manage their total cost of ownership of a solution like this is critical. How does the bandwidth and the network infrastructure that you have in place give you an edge in being able to address their total cost of ownership or their TCO issues?

David:
Yes, absolutely. Total cost of ownership is certainly something that our clients take very seriously, right? All too often you can think of making a capital investment and putting in a camera system with Stealth or anybody else, but how do you spend less money on trucks driving out servicing that equipment over time? So we tend to use very high-quality parts and a very high-quality labor force to install the parts.

But the question is, after the site goes live, after Stealth starts monitoring it, how do you keep their maintenance and service bills down over time? And like I said earlier, we built all kinds of tools which is basically data movement. We have found that over time, 50 to 60 percent of all of the service tickets we are able to troubleshoot from here by working remotely and/or with our client’s employees directly on site—meaning that 50 to 60
percent less truck rolls and service calls and time-and-material bills or warranty plans that our customer has to purchase over time.

So we have this unique factor because of all the data we pull back, we are able to save the clients’ money by doing things remotely, and they absolutely love that. That’s a big part of why our customers love our services. Of course, the number-one reason is being proactive and having a video actually proactively monitor, but the total cost of ownership that we provide with our customers is really, really important.

Michael:
And it sounds like you’ve turned that total cost of ownership strategy on your own business as well.

David:
That’s true. I think we definitely want to keep all of our costs down. We think we’re a lean and well-run organization. Just so you know, in 2015 alone, just by building some new data sets and data warehouses off of our existing data, we were able to improve our monitoring margins by over 10 percent. That’s interesting, because that means my labor force today in the monitoring department is about the same as my labor force was a year ago. Why is that special? Because we just grew by 2,000 cameras this year or maybe more, quite a bit more, and yet our labor force is actually still the same size. So that essentially, you can look at that as operational efficiency, but you can also, if you have a financial mindset, look at that as profit improvement for sure. So real, real tangible dollars from that total cost of ownership strategy.

Michael:
David, it’s great having a chance to talk to you. You’ve just got a real exciting business that you’re running.

David:
Thank you very much. I appreciate you guys allowing me to be part of your program. Hopefully it’s meaningful to our audience, Michael.

Michael:
Thanks, David. Companies like Stealth Monitoring are leveraging the new network to rewrite the rules for business. As David explained, the more your organization depends on its network, the more important network performance is to your success. Be sure to do your homework and choose partners that can give your business a competitive edge.

For Time Warner Cable Business Class, this is Michael Harris.

https://business.timewarnercable.com