

INTERVIEW TRANSCRIPT

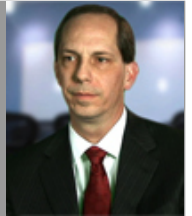
Interview on behalf of Qwest

Ian Patterson

Scottrade

Chief Information Officer

Last updated: 2008 Nov 17



Product(s): iQ: Private Port
Industry: Services, Finance, Retail

1. Business need

The business needs that we had were number one, we were oversubscribing our network and we're growing. Growth is dramatic for us; as I said, we're at 290 branches and we'll be at 500 branches by 2010, so our growth is pretty dramatic and we're already oversubscribing our private network. On top of that, we looked ahead with some forethought about what are we going to be doing application-wise from the branches to corporate, and that led us down the path of moving to an MPLS network."

2. Evaluation & selection

From a selection perspective, we looked at all the key players out in the industry, all the key vendors, and started out by looking at, from a technical perspective, who had the best technical architecture. Then we also looked at from a longevity of a company, the capabilities of a company, who was going to be around? The other things we looked at were from a service aspect. What were we going to be able to look at from a service perspective? So we don't--and this is typical at Scottrade--we aren't just looking at a low-cost provider. We're looking at what is the total value of anything that we do and when we went through the MPLS purchase, we looked at the total value of the vendor and what they had to bear from all of those areas--cost, capabilities, service, support.

We started out with probably five players, went down to the three major players in the industry. It took about, oh, I'd say three months. We did our due diligence. Like I said, it was probably over a month just on technical layout of what were the capabilities, how were we going to be able to make this work? The second piece was going out to the industry analysts and looking at what they thought of the various players. And then the last piece was just the finalization of the vendor and the contract negotiations before we finally signed the deal.

3. Why Qwest?

Number one, the capabilities of the service and the organization itself. I still to this day believe that any other vendor out there, the major players are 800-pound gorillas and they're going to get it done in the time that they get it done. They aren't looking at it as you need to have it done in the time that the customer needs it. Qwest is doing that and has done that for me in everything that we've worked with them on. Secondly, I would say it's the technology and the technical prowess that they bring to the table in coming up with a solution. What I mean by that is everybody talks MPLS, but now I've got MPLS in a financial services environment. I've got 280, 290 branch locations--and I always say 280, 290 because I don't know which day where I'm at, okay? It grows that fast. When you look at it from that perspective--I'm in strip malls, okay? Our organization has all of their branches in strip malls--class A strip malls, but the issues that we have there are really compounded. I'm trying to do financial services business, okay? Security is key. I've got regulatory needs from a security perspective. We have a total different view of how we're going to have to implement MPLS from our branches to our corporate because of that, and Qwest worked with us diligently to come up with what's the right solution for us? It wasn't taking a hammer and saying 'Here, use that' when I needed a screwdriver. We really tweaked it and took quite a bit of time not only during the contract negotiation--they didn't just walk away. You know, it wasn't just signed and walked away. It was 'Okay, now we've got the premise and the analysis and the initial design of what we wanted to do. We signed a contract. Now let's try and really get it in implementation.' They're still there as a partner working with us, making sure that we've got it done the right way so that we're covered.

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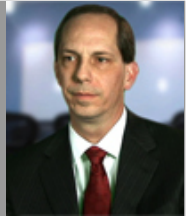
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4. The implementation/installation

The implementation that we're going through right now, it's got multiple facets and the rollout structure is pretty critical because we're going to be rolling out--we are rolling out, actually--looking at the various branches that we have. Some of the branches--for example, we have fractal T-1 in some branches; other branches we have full T-1s. So we've taken it and made the decision and looked at 'Okay, which branches need it the quickest?' We didn't try and take a regional view of how we were going to roll this out. We're trying to do the biggest bang for the buck the quickest in how we're doing our implementation. From a project management perspective in the things that have occurred, this was really another reason we chose Qwest. I feel very comfortable that we've got a single throat to choke. In a lot of other things--and I use all the other providers for other things that we have going on. It's--okay, if I'm doing this, I have to go to this organization; if I'm doing this, I have to go to this organization. With Qwest, I know the one person that in all things, I give her a call, we get things rolling. We may end up with four or five different organizations with Qwest working on it, but it gets started at the same person, and it started at my sales representative. And I think that is key because the same person that's selling it is helping me implement it, and she's not going to sell me something that she doesn't feel comfortable she can't get in.

We will have all of our branches, all of the current branches, completely rolled out by December of this year. That's taking into account some major changes in the branches also. We're going through and doing--like I said, they're store front operations in strip malls. We're going through and doing an analysis of the actual layout to make sure that we don't have to do any physical build-outs while doing this because we're adding functionality. We aren't just changing the network, we're adding functionality when we do this and we're adding security. So we're having to put some routers and switches and firewalls and things in a little storefront, and making sure you have closet space to do that type of thing is pretty critical. The other thing that we're doing this is we're changing our whole backup strategy. So we're moving from, you know, using two pipes across the typical phone type line to having our main stuff coming through MPLS and our backup strategy is going over DSL. So that's an additional piece that we're going to have to put in place, and you can imagine [that] working with all these strip malls and every one of the owners trying to come through and get all that rewired is a lot of fun. But Qwest is there right along with us making sure that each one of those is done in the time frame that it needs to be done.

5. Overview of solution

We have an operation where, from a call center perspective, you really don't have a call center. As a matter of fact, there was just an article written up about Scottrade where they call us the Southwest Airlines of the broker-dealer land, and that is because when you call Scottrade, you are routed from our central location to your branch. The first call you get is with your local branch and you're talking to your broker that you've been working with for years. So it's not a centralized call center operation. In doing this implementation, we've had to start at the branch and say 'Okay, we're going to put the switch gear in at the branch, we're going to put firewalls in at the branch' because, as I said, there are regulations coming down the pipe; because we do more than just voice. We do workflow and scanning operations from our branches. We're trying to be paperless. So when you come in to open an account, we take the information, we either enter it on line or we have to get signature cards. We get all of that done, scan it in, destroy the documentation. That goes right across the iQ network, the MPLS network, to corporate, and then it's workflowed to all the operations that need to make the additions to whatever area. So you've got the switch gear and everything that's at the branches. Then you have the actual network going into the cloud at Qwest, coming back to our centralized switches at our facilities in St. Louis. One of the interesting things that we have also is we record every conversation of every broker at every location throughout the day for a number of reasons; for legal reasons, for compliance reasons--just for a service perspective. We review on a monthly basis a large chunk of every branch so that every branch gets reviewed from a call perspective every year to use it for training. So that has to be put in place along with our recording systems and tied into that to make sure that that's all in place so that we don't have any issues there.

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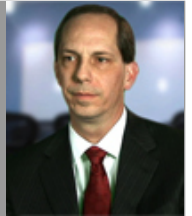
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The Qwest components that I use are really multi-faceted. From the--we've talked a lot about the iQ networking and the MPLS from the branches to corporate and back and forth. We're also using Qwest in our disaster recovery area; in our DR site, we have a 192 ring with Qwest along with an OC-48 for Internet traffic in DR and an OC-48 for our primary Internet traffic. We also have between our DR facility and our data center OC-12s to handle replication of data between the two facilities. So we've got facility replication, we have DR work that we're doing with them, we have branch network work that we're doing with them. We're looking at a lot of other areas where we can expand with Qwest, but we've got a lot of various pieces with them today.

Qwest is a strong partner with us on the Cisco side. When we built our new data center, we actually used Qwest as our purchasing partner to purchase all of our Cisco gear, and we're primarily a Cisco shop, so in putting together our network and working with Cisco not only in putting together and buying the network, but working with Cisco Advanced Services, we brought in some of Qwest's key engineers on the sales side and in other areas to help us design the network that we put in place. So we had Cisco, Qwest, and Scottrade all looking at it to determine what was the best way for us to implement our new network.

6. Customer service

At Scottrade, when something happens, it doesn't take long until it hits my phone. We aren't that large of an organization that it gets lost in the morass. I know when there's a problem in the network; I know almost immediately when there's a problem in the network. Working with their NOC, working with their people has been wonderful. We have very few times that we've had issues. I would say I find out almost as quick as some of the top people here at Qwest that there's a problem, and they're ready to talk to me and they know what's going on--from my level, they know what's going on almost as soon as I do. And I think that's key also. It's not just the NOC that's doing things, it's not just--and they aren't looking at just my SLA; they know Scottrade well enough, they know the criticality of our branches to us and they understand what it takes and where we drive, and they drive just as hard here to get things resolved as fast as they can."

"We had an issue almost 18 months ago where there was a flap in the network, and that flap occurred across the entire country in 5-minute buckets roughly. In a lot of areas, it was even less. But per our contract and per our service level agreement, Qwest didn't have to do anything for us. They could have just said 'You know what? Contractually, you're not covered.' But they understood what that did to our customer base and what it did to us, and Qwest came back and said 'You know what? We really do need to do something for you here. We're willing to come back and give you a credit for what occurred during that time frame.' And I was on the phone with their senior technical people discussing how they were going to rearrange things and redesign the network within the next week or two to not ever have that occur again."

7. Non-financial benefits

We've talked about the fact that, you know, at Scottrade--and a lot of people aren't like this--a large piece of our business is the first hour of the day in trading. Matter of fact, a lot of it is the first 10 minutes of the day in trading. If we have internal issues with our systems, as I said, the first place our customers go is to the branches. It's a situation where not only are we recouping and recovering and causing, you know, major financial ramifications for us if we have an outage in our systems, but if the customer can't get in touch with those people at the branches, we've lost them. And we have 1.5 million clients today, 1.5 million customers. If you look at a huge outage--if we had a outage at market open--knock on wood we don't have those, but if we had one at market open, in that first 10 minutes, we do roughly--on a good day we'll do 40,000 transactions in the first 10 minutes of market open. So extrapolate that and take that into account of basically 40,000 people who can't get ahold of their branch manager or their broker when a problem occurs--we'd have a major issue as an organization if we didn't have the capabilities and the connectivity that we need.

We're an Internet trading company and we are always--when I say leading edge, comparative to other companies, we're

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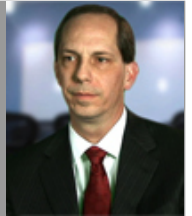
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bleeding edge in everything that we do. There are so many things that--I go to various, you know, CIO forums and people are astounded at some of the things that we're doing that we consider commonplace today. So we look at it when we build out our capacity--and another interesting thing that we have, when we build out our capacity anywhere, we look at three to five times what our normal volume is as where we need to be. And the reason we look at it that way is God forbid we ever have a stock market crash--right at that point, we're going to get a flood and we need to be ready for that. Having that capability to burst is key for our success. Now add on to that we have no idea--way out there, we're always thinking. You know, we work with Google, we work with Yahoo!, we work with some of the key companies out there that you would think of as leading edge and talk about what's going on. We still don't know everything that's going on. You know, what's the ramification of the iPhone going to be when it comes out in June? What're the ramifications when they get to the point where they're going to be able to do 3 gigabytes across Wi-Fi in trading--streaming quotes across that. We can't think of everything that's going to occur. We know some things that we're looking at, but we have to be ready for anything that's out there. The other thing that we have, and you talked about the CEO, Rodger Riney--we do monthly video feeds down where Roger talks about the state of the company to everybody in the company. What are the key things that are occurring? What are the key things that are going on? We want to make that more interactive and when we have MPLS and the iQ network up, we're going to be able to do that. And I don't really like--when we talked, I said it's not really video conferencing. I don't like to talk about it as video conferencing. It's collaboration across an entire organization. That's what we see as what we want to get to. Forget the video conferencing, forget sitting in a little room--you know, the old thought where I got a little video camera here and there's 10 people all trying to squeeze into the picture and you might have Net Meeting going at the same time. We want to have full collaboration to all of our branches and that's where we're driving."

8. Measurable benefits

Financially, we do do our total cost of ownership models. We typically look at the impact and the cost of anything from an 18 to 24-month payback. That's unusual for a lot of companies--you know, they stretch it out farther. We look at things very quickly. So we look at that kind of payback time frame when we're doing things, and we looked at it when we made this decision for iQ. From a cost or risk mitigation perspective--I mean, just take the baseline cost, that \$7 trade--just the transaction fee. If we had a problem and we couldn't get through our normal trading, we allow our branches to take trades. If we had the network down at the same time--let's say it was a massive catastrophe--you're looking at \$130,000 to \$150,000 an hour just in transaction fees that would be out the door, okay? If we had an issue. That's not tied to the covering of issues. One of the things that we do as a company, and it's tied a little bit to the industry--if we don't get your trade out on time--let's say you're looking for whatever, company B, and the quote that you receive is, you know, \$20.30 per share. Well, if we don't get that trade out and all of a sudden it hits \$20.40, we have to cover you. So those types of things make it very quick for us to have the potential of losing large amounts of money. So the risk of not having the capability of talking to the customer, having that personal one-to-one interaction, it's critical for us.

9. Areas for improvement

One of the things that we've discussed with Qwest, and I think they're going to look at it diligently for us, is visibility into their network. We may be a little unusual that way, but we want to be proactive. We want to know when they know that there's a problem and we're working with them in partnership to figure out how we can do that. At a detail level, every one of the providers can give you a high level view of the network and it's red, green, or yellow in various places. We want to know 'I've got a problem here; you're rerouting me. I've got a problem in Denver, you're rerouting me through Salt Lake City and that's causing me degradation in voice capabilities because of that. What can we do to change the route?' Those are the types of things that I think we really want and I think we're going to get in the near term with them.

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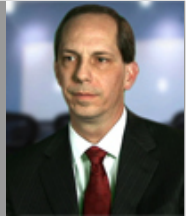
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10. Future plans

One that comes to mind that we're looking at right now is we handle all of our IVR--interactive voice response, touch tone. We're looking at putting that out in the cloud. It doesn't make sense for us to do that long term; we'd like to have it someplace where that's out there, where somebody who knows how to manage the cloud and knows how to do it, does it for us, and keeps us out of that piece of the business. It's not a core competency for us; why should we be doing it?

Voice over IP. That is another one that probably in the next three to six months, we're going to develop our strategy. And again, when I say develop our strategy, we move so fast that we'll have our strategy developed in six months. We want to wait until we have the entire iQ/MPLS network out there; then we're probably going to be moving into voice over IP. And I think probably by the end of the year, by the end of '07, it's going to be at the capability where our quality of service is not going to be hindered at all by being over in VoIP. So that's one of the things that--you know, we had a discussion actually today about it. I want to move off of three 9s and I want to be at four 9s before I move to that, and it's not at four 9s in the industry yet, and that's one of the issues that we have. And another issue with it that we're trying to get through some resolution on is it's really not quality of the network. As I said earlier, being in strip malls, I have to worry about the quality of the base stuff in that location before I go into voice over IP--and how do I secure that?

DR's another critical piece that we have to look at. We've just recently built a new data center, state of the art with an entire new technology base. Now we're going to have to upgrade our DR facility, and we're looking at various strategies on that. Do we do a hosting deal there? Do we bring in some critical resources internal in another location and host other pieces of it? Another area that I think we're going to start exploring is can we look at--we're an Internet company. We do a lot of different things with our network. I'd like to get into a partnership where I've got telcos helping me talk about performance in the network, okay? They're running much bigger iron than I am; how do they do performance testing that I can take advantage of and start looking at the various applications, various hardware that's out there. So that's another one that I think this year we're going to be looking at really heavy."

11. Recommendations and advice

The first thing in anything you do--anything you do--make sure you have top business buy-in. And what I mean by that is when you're in a relationship with a company like Qwest and you're a CIO, it's very easy to get into jargon that just blows through--look at MPLS, multi-protocol layer switching. My CEO would just glaze over as soon as I started talking about it, okay? There's no doubt in my mind. So the first thing is making sure that you have a cohesive discussion with your business of what are the benefits of the product you're going to implement? And I chose that term very carefully because a lot of people talk about the technology they're going to implement. I don't even talk technology. Very rarely do I talk technology; I talk the product and what's the product going to do for me.

The other thing I would say to peers is--and this is a little more generic--as an organizational culture of IT, we need to stop calling the business 'our customer'. We need to stop calling vendors 'vendors'. We need to be part of the business and stop saying 'Our customer wants this, our customer wants that.' No, you are part of the business and you don't have vendors--you have partners that are trying to help you. Now that's really--it sounds really grandiose; I know it does. But if you don't build that relationship, you're not going to be a success in anything you do with any company.

Don't underestimate security. We're way out there, and this is one of those areas that I talked about earlier where I consider us--I look at some of the stuff we're doing and it's like 'Yeah, it's yesterday's news.' Well, for a lot of companies, my yesterday's news is three years down the road for them, okay? And from a security perspective, I think one of the things that people have to--especially with the voice over IP and the networking

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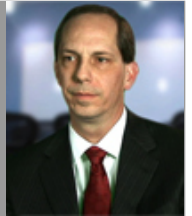
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constraints and what's coming down from a lot of the issues that are out there with--that all of the SEC, the NASD, HIPAA, all the regulatory and political aspirations of various people now that are driving security, I think you're going to find that it's not just that you have to do security for security's sake. You have to look at security in everything you do and it has to be there from the beginning, not just an additive, because if you don't bring security in at the front, a lot of your products are going to falter in implementation. Okay? A great example is we talked about--I gave you the brief scenario of how we have our network. It goes from the branch to corporate, or it goes from your phone to corporate to the branch and back to corporate--very simple. Well, what happens in a business continuity perspective, okay? I've got security devices at my branches that will encrypt, that will be firewalls. Security devices like to work in a one-point path. So if it's up, I know I'm up. Well, what happens if I go down? I've got my DR and my business continuity setup that says 'Well hey, if I lose my branch--' Let's just say a guy cuts through the wire at the branch. Well, I route over to DSL. How's my firewall know that I've routed over to DSL? A lot of people haven't thought about that stuff. Now let's go on top of that. Forget if it's the branch that has the problem; what if I have a problem with my corporate scenario, my data center? Got my backup data center, okay? Have it set up to where I can roll over to my backup data center. How do my branches and the routers--routers and switches and MPLS will work fine. What happens to that firewall that's there? It's thinking I'm here; how do I let it know I moved over here? Those types of things right now a lot of people haven't even gotten into and I think we're going through some of the pains that are going to make it much easier for other people.