Twelfth Annual Aldrich C. Bloomquist Lectureship

Providing Information Technology Services Using the Cooperative Business Model

An address by Vern Dosch
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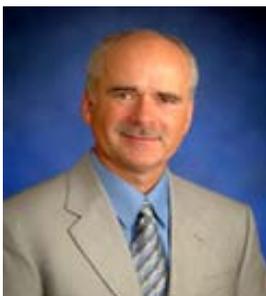
Vern Dosch is NISC's President and Chief Executive Officer. NISC provides billing, accounting and engineering software solutions to over 500 rural utilities and telephone companies and 7,200,000 end customers in 47 states and American Samoa. Its offices are in Mandan, North Dakota and Lake St. Louis, Missouri.

Al Bloomquist served a distinguished career at American Crystal Sugar Co. as president and longtime executive. This lecture series has been established in recognition of his contributions to the company and the industry by American Crystal Sugar through the Quentin Burdick Center for Cooperatives at NDSU.

American Crystal Sugar is a cooperative that produces 16 percent of the country's sugar. The company is owned by approximately 2,900 shareholders and employs 2,000 men and women in the states of Minnesota and North Dakota. The company generates approximately $1 billion in sugar sales annually.

Fourteenth Annual Al Bloomquist Lectureship
Vern Dosch
March 20, 2006
North Dakota State University

Introduction

I want to thank Dennis Hill for bringing this opportunity to my attention. There are a couple of reasons why today is really important for me. I started off my day at 9:00 this morning in a class on Cooperatives and spent an hour with the students; it was delightful. For me it was the final piece of the puzzle; because I thought back to when I was going through the university system. I got a degree in accounting and business, and two days after I graduated I interviewed at Capital Electric Cooperative for a job. Throughout those business classes I had never been exposed to cooperatives.

So there I was sitting in the interview and they were talking about how the customer is the company and the profits are allocated back, and I'm thinking "What is this?" I understand the for-profit company, the stock market, and proprietorships and partnerships, and we did all these case studies and practice sets on that form of business, and here my first interview out of the university was about cooperatives. Little did I know, 30 years later, that I would be looking over my shoulder back to that first interview. So, I say thank you to the NDSU for incorporating that into their program. I very much appreciate that, because my conversation with the students this morning was about the career opportunities in co-ops; the fact that when you're 21-years old you don't have to think that the only way to a good job is to get out of North Dakota. I was very impressed by the questions that they asked. Their questions were not about how much

money do you make; their questions were about how do you raise capital, what about equity. They were very insightful. I was very much impressed by the students. I appreciated this morning probably more than Dr. McKee will know because it was the final piece of the puzzle for me.

Cooperative Legacy

The other thing that I would share is a true story that shows why I feel so strongly about this industry and the cooperative business model. My first exposure to cooperatives was perhaps in 1956. I remember sitting on my grandfather's lap. He was a big old German guy. I sat with him at his roll-top desk. And behind his desk was a picture – a stately picture of men dressed in dark suits and white shirts in a very grand hall. Grandpa Dosch would say, "Vernie. See that picture, second row, third from the right? That's me. And I was at a national rural electric convention, and we were learning how to start a co-op." And he was part of that original incorporating group that established KEM Electric.

At three years old I didn't understand the significance of that, but I knew it was important because he told that story a hundred times as I was growing up. It was very important to him, and he spoke with conviction about how he remembered when the REC crew came to his farmyard and they had electricity for the first time that night. It was a life-changing event for my grandfather. But I really didn't connect the dots until I interviewed at capital Electric. That evening I called grandpa and I said, "Capital Electric. Is that like KEM? Tell me about it." And that's when he finally connected the dots for me.

Sebastian lived until he was 92. From the day I took that job at Capital Electric every time I would see him, it wasn't "How's the wife and kids". He would say, "How is

the co-op?" So I consider it to be part of a legacy that what he started was part of something that provided a career and the beginnings of a wonderful organization in Mandan, ND. That's what I want to talk to you about.

Necessity is the Mother of Invention

When I was talking to the students this morning I was saying "Tell me what you think about when you're thinking about co-ops." They were talking about the rural electrics, telephones, grain, value-added co-ops. I asked if they had ever heard of a technology co-op. Technology co-op? We don't really think about co-ops in that context. But that's the story I would like to tell you this afternoon is the story about a vision that was started in 1964. It actually started in Dennis's (Hill) board room in Mandan.

What had made my grandfather so angry is that when they started seeing central station power in the major cities, and they approached those companies and asked them to bring it to their farm, the investor-owned utilities said it wasn't a good business opportunity for them, and frankly it wasn't. But it was that initiative that began the rural electric co-ops around the country. At that same time the ND association of rural telephone and electric co-ops decided they needed to start automating these cooperatives. They went to Minneapolis, visited IBM and said that there was an opportunity for them. There are all these rural co-ops throughout the country doing everything by hand: billing, payroll, engineering and they'd like to automate that. The company's looked at them and said, "I really don't think that's someplace we want to go." And in much the same way they started the rural electric cooperatives, necessity was the mother of invention. And these farmers and ranchers, certainly not computer scientists, sitting around a table,

decided that what they had to do was form a cooperative to serve cooperatives. And that was beginning of NISC.

The Beginning of NISC

It was 1964, and the association started and electronic data processing division. I think back about the courage and vision of those who started it. Can you imagine going and spending a couple million dollars on a mainframe computer and programmers who were practically non-existent at that time, writing the software from scratch; there was nothing out there they could license or buy. They had to start from scratch. As you can imagine, those first few years were a struggle; a lot of expenses. And there was no precedent; where in the country could they go to see a regional data processing cooperative, a software house like this that was a cooperative. This was precedent-setting! There was no place they could go and pattern themselves after. So what was formed was a cooperative serving cooperatives. The thought was that developing software was all about economies of scale, and if you could develop software once, and install it in several offices and utilities, that it would certainly be less expensive than doing it on their own. Because doing it on their own was not even an option. They knew that if they were to be true to their mission and deliver power at the cheapest, least expensive cost to every member on the line, they had to venture in this direction. And that was the beginning of NISC.

The first three coops that came on board in 1966 were KEM Electric (Linton), Consolidated Telephone (Dickenson), and Verendrye Electric in Velva (Everett's Co-op). Can you imagine the nerve of these co-ops to get in line first? Probably the most important thing I can tell you about NISC and our philosophy of taking care of our

members, and the dedication that our organization has to our member owners, is that these three sites came on in 1966 are still our customers today. Technology industry is notorious for churn. Typical software is going to churn a quarter of its customers every year. And for NISC it's about getting new customers, new cooperatives and growing, but we also need to do everything to make sure that our existing members are satisfied.

NISC's Mission Statement

The mission statement is pretty straightforward. To enhance the success of our member owners by providing world-class information technology solutions while building lasting relationships. We were talking about it last night at supper. It stands to reason that the smaller utilities and cooperatives are indeed smaller in the grand scheme of industrial and municipal utilities. But wouldn't it stand to reason that these smaller co-ops, with more limited resources, are going to be using antiquated, second-rate technology? Absolutely not. They are pioneers in rural electrics. Mike Gustafson's co-op pioneered one of the first automated co-ops in the nation. And when you look at the technology employed by these co-ops today, the customer/relationship management systems, the billing systems, and the engineering systems, and the electronic bill-presentation and payment systems, all those products use technology that is as sophisticated as you will find in the nation. And a lot of that has to do with the fact that even before my time, they had the vision that this cooperative model was a good way to deliver technology. Think about it, 40 years ago, Bill Gates was 6 years old and Microsoft wasn't around. Intel. Dell. Sysco, Oracle, SAP, Peoplesoft, not even in existence. But back then NISC was already in its formative stages. What a testimony to vision and determination of those early folks.

The statement of shared values is something that I want to share because it gives a sense of the heart and culture of NISC; it's what drives the employees. It was developed in 2000. It was unique because it was developed by the employees. We got the employees together from different divisions, entry-level, one vice-president, and said we want you to develop a statement that will describe the way we do business. It was risk because you never know if they are going to come up with something off the wall, and then what would you do. They came back with a statement that has really endured in our organization. And every single one of us as employees, including myself, 50% of our performance review is based on living the values of the organization. If we've got a great Java programmer, a great Oracle database administrator, a knockout salesman, that isn't living the values, I will tell you they won't be in the organization long. The co-op business model allows us to embrace this way of doing business. We are driven somewhat by the bottom line, but more than that we are driven by doing business in an ethical manner, by doing the right thing always. That's the core of what we do. And it is one of the things that has sustained our organization in pretty turbulent times in telecom and utilities and technology. I mean if you think about those three fields since WorldCom and Enron and the dot-com going bust, NISC has been in the middle of all that and have been able to sustain and continue growing and serving our members during the most difficult times, and I will submit to you that the cooperative business model has allowed us to do that.

NISC Personnel and the Co-op Business Model

Our employees today, 557 employees. Half of them programmers, analysts, database administrators, technical writers. Half of them educators, installers that are

traveling the country installing our product, and 26 of them are virtual. Today, being a virtual employee is fine with us depending on your skill set. We have employees that live in Snowmast. We have employees that live in Phoenix, that are writing software for us. And the connectivity that we have, the infrastructure that we have built allows us to do that, and that's a pretty neat option for our employees. Our employees are a mix of seasoned professionals and new talent. One of the things that's really interesting is that when you walk into our office, you will see a panel of about 75 employee pictures of employees that have been with our organization for over 25 years. A technology company? 25-year employee? Unbelievable! 4% turnover rate?! I'd like to tell you that the low turnover rate is because of the extraordinary management that we have. But I will tell you that it is the cooperative business model that has allowed us to take a long term view in a field that typically is short term. Typical technology companies are looking to see what they can tell the analysts what to expect for the next quarter. The co-op model gives us the luxury, and it truly is a luxury, to look long term. To be able to understand that things are cyclical, that we're not going to overreact, and stick to our business plan. That has proven to be so valuable for our organization, because our members are most concerned about the service, products, and support that we deliver. They're less concerned about the return on their equity. But they are part of NISC because these are mission-critical applications that they need to run their business, and only that, having control of that, being part of the cooperative, has allowed them to be successful in reaching out.

This is where our customers are today, our member owners. You know, I think the vision for NISC back in 1964 is that we're going to take care of the co-ops in ND, and

then were going to get very adventurous and reach out and grab few of them in Montana, maybe in SD. And over the years, this organization has grown generally by word of mouth to serve over 500 co-ops now in 47 states and American Samoa. The economic impact of about 557 employees is a payroll of about $32 million and benefits of about $11 million.

One of the most interesting experiences I've had in the last couple of years happened in 1998. It was a panel discussing how to attract and retain technical employees in what then was a pretty unstable market. Back then, if you could even spell COBOL you were getting big salaries coming out of the university, and we were in a mode when we had to give raises 2 and 3 times a year just to keep our employees. A crazy time! I was on this panel with Bill Owens, who I admire vary greatly; he's a native North Dakotan, went on to Annapolis, became Vice-Chair of the Joint Chiefs of Staff, and went on to be the CEO of several technology companies. And it front of lots of people Bill said to me "How do you recruit the employees you need, Vern?" "How do you recruit the Java programmers, and the Oracle database administrators? Do you offer them stock options?" I said "No, we're a co-op; we don't offer them stock options." "Oh, then you must give them big signing bonuses, right?" And I said "No, we don't offer them signing bonuses." "Well, do you get them with headhunters?" And I said "No, we really prefer to grow our own." And he said "I don't know why anyone would come and work for you." And I remember going home that night feeling just a little uneasy, because he said there was no way I could hire a programmer on the west coast without big fat stock options. That's why they come to work. If you fast forward about 6-8 months my phone rang in my office in Mandan, and it was Bill Owens. This was after the tech-bust and all the dot-

coms were going out of business, and all these employees with all the stock options now had the big goose egg. He said "Vern, do you remember me?" "Yes." "Remember when we were on that panel about stable employment, good career, good retirement benefits" "Yes." "I understand now. And I believe that I have a whole bunch of ex-employees that understand too."

So we kind of set the course of how we would grow the organization from an employee standpoint. And that has proven to be very effective for us. We tell our employees that we are not interested in creating jobs; we are interested in creating careers. If we have an undergraduate employee, and they want a graduate degree, we pay for it-tuition and books. If they want to get their Microsoft Certification, we'll pay for it. We encourage our employees to grow in their knowledge skills and abilities. That's an important part of our expectation. If they want to advance in their careers, they will take advantage of some of those.

So, it's been an interesting situation since the 1990's when we couldn't get the programmers we needed. We had up to 35 East Indian contractors working in Mandan. Had another 40 working for us on projects in Bangalore, India. And today we have been able to build our own work force to where we have only two contractors. These are short-term, mentoring special skills, and then they'll be gone. But the concept of growing our own, providing those opportunities to our employees, has helped us preserve our intellectual capital which is really at the heart of our organization. It's the imagination and innovation of our employees that is developing the next generation of products for our customers.

This morning I listened to CNBC. They reported Dell is moving another 20,000 jobs offshore. We've been there and done that, and anyone who tells you that they can deliver and develop software cheaper than you can onshore, I beg to differ. I'll tell you that if you're interested in reducing your labor costs for the next quarter I understand, and I think that's valid. But if you're looking at the total lifecycle and total cost of ownership of a piece of software, I've run the numbers every possible way, and I really believe that providing a software product utilizing your own employees rather than outsourcing makes it possible to provide a more stable product at a lower total cost of ownership.

The Growth of NISC

NISC has become a technology company with a national reach. Who would ever had thought that this small, non-descript company in Mandan, ND would start with a billing product has expanded to over 100 products and services that we offer rural electrics and telephone systems. For these Members we can come into their office, building their networks, construction infrastructure, install applications servers, their network servers, installing our software, training their employees on the use of our software, and supporting them going forward. The engineering applications, bill print services. We print something like 9 million utility bills per month now, and are distributed to every corner of the United States. NISC has evolved into a full service information technology cooperative.

One of the newest products we have is really a partnership between NISC and Touchstone Energy. A number of years ago Touchstone Energy approached us and asked, since you've been creating and calculating utility bills for about 40 years, Fortune 500 companies have a need for someone to outsource the payment of their utility bills from

all their facilities across the country, schedule them for payment, pay them, and then capture all the data on the utility bill and then do the analysis on it to help their energy manager do a good job of managing energy consumption at all these facilities. We stepped out in faith with Touchstone Energy a couple of years ago. This piece of business has grown for us to today, we are working for the likes of Nextel, Penske, Johnson Control, Owens-Corning, Hobby—Lobby, Mazio's, and we are in phase five of a six-phase project to bring in all 24,000 of Wal-Mart's north American facilities onto NISC's C&I product. Wal-Mart does not get a single utility bill for any of their facilities, they come into Mandan, it's processed, it categorized, it scheduled for payment, Wal-Mart wires the funds to us, we distribute the payments, we capture all the data on the electric bills, and we help their energy managers do the analysis. On the rural electric and rural telephone part of our business, the bills that we present are utility bills of about $1 billion per month in utility bills we are generating today. For the C&I customers, managing just their utility bills this next year will be about $2.6 billion, and all of that happens in Mandan, ND.

The Digital Divide

So, this isn't Mayberry anymore. So, for those that talk about the digital divide, I don't get it. In our facilities in Mandan and Missouri, we have all the bandwidth we need, whether its land-line, dedicated fiber, dedicated circuits between here and Missouri, wireless, whatever we need, we have access to. There are no constraints to being a software company, a technology company in Mandan, ND. I think probably that the best thing we have going for us is our relationship with the university system. This pipeline of new talent that we need as our organization has grown and to replace and provide a

succession plan for our employees that are retiring, this relationship with the universities is very important to us. They have been willing to sit down and work with us and ask "What do you want the graduates to look like?" "What skills do you want them to have?" And we have been so fortunate to get, what I think, are some of the best and brightest Java programmers, database managers, and MIS and CIS gradates in the country.

I'll never forget that a couple of years ago we had the chance to go with the ND department of commerce to San Jose to do a presentation on doing business in ND. And you talk to the CEOs of other software companies in the Silicon Valley, and they would say "Tell us what it's like to do business in Mandan, ND. I'll bet you can't get the people you need, that you can't get the bandwidth you need, right?" And I'd say, "Let me tell you about what it's like working in ND for a technology company." Those CEOs in Silicon Valley come to work each morning realizing that 25% of their employees aren't going to show up. AWOL, sick, whatever; aren't going to show up. I'd ask them how they manage large-scale development projects when a quarter of your employees aren't going to show? They'd respond that if they needed 100 employees for the job, they would hire 125, and if lucky 100 will show. I told them that the average sick day usage in ND is 3 days per year, and that with an employee base that's 33 years old and has a ton of young kids, and most of those sick days are to take their kids to the doctor and such. By the way, among our employees in Mandan, 29 new babies in the last nine months.

Having been in the industry for 30 years and if I were to start Vern's Software Company today, knowing what I know, and knowing that the pipeline of great graduates and their work ethic, this is where I'd start a software company, here in ND. And maybe

that sounds corny, and this isn't an economic development speech, but it's the truth and kind of a summary of my experience.

So, Buffalo Commons; I don't know what they're talking about. I'll put our products, our technicians, whether they're programmers or analysts or installers or project managers. I'll put them up against any employees that are coming up out of San Jose, or Boston. I think that the same skill set is here. Certainly the dedication is.

We have made a conscious decision to only recruit from ND universities, and I think you understand why. We don't go head hunting, and we have found that the best graduates, long-term, good, solid, intelligent, innovative employees come from these institutions.

The technical skills that we are after every day: object oriented methodology, agile programming methodology, Java programming skills, Oracle database administration, technical writers, project management, educators, people that can learn a piece of software and can teach a class and develop materials. These are the students and the skill sets that we're after. Accounting degrees, business degrees, communication degrees, computer information systems, management information systems, these are the degrees of choice for us.

A Great Place to Work

About four years ago we were contacted by Computerworld. When Computerworld contacts you as a technology company you answer. This is probably the premier publication in information technology. They called and said they were starting a project to identify the top 100 IT places to work in the country. We thought we would

reply but felt our chances were remote compared to companies like Microsoft, Google, Yahoo, and the like. But as a professional courtesy we responded. They didn't just want our HR people saying "this is our benefit offering and so on", they wanted a list of a third of our employees to contact them directly. That was a risk, but we thought it would be nice to know. I'll never forget when I got the call from ComputerWorld saying, by the way, NISC made it in the top 100 in the nation. I was surprised. We're just a little software company, 500 employees, started by a bunch of farmers and ranchers in ND. Top 100? That's gone on for the last 4 years.

More than anything this message that the Computer World survey is sending, and the message that our employees are sending to the Computer World is that we have the best of both worlds: we're living in a place that we love, we're working in an industry that we love. We're working for a company that is far from perfect and has a lot of areas that we can be better, but we keep working at it every day and the challenge we put in front of our people is to be a world-class company that comes out of a rural environment. And that has been something that has motivated our employees and encouraged them to stay, and that has been a great story and testament to those who had the foresight to start this organization.

One of the most rewarding parts of my job, and this happens often, where we'll have someone who grew up in the Midwest, they go away to Minneapolis, or California, or Denver. They go after the bright lights. And when they start thinking about having a family and what it was like to grow up in ND, we'll get an unsolicited call where they say they want to come back home. I will tell you there's nothing that does my heart better than to say "come home, we've got a good job for you."

Intellectual Property

What keeps me awake at night? All of you have probably heard of the Blackberry case, patent infringement, and intellectual property. If you've ever written a line of code, or sold a piece of software, you need to be concerned about this. I wish I had another two hours to talk about intellectual property. It's a major concern for any software company. Not only in terms of their ability to be innovative, but major concerns about the motivation of some in what they're doing with innovation by stifling it with the threat of patent infringement. I'm not going to go any further than that, other than to say, pay attention to the whole theme of intellectual property; it will play a major role in software development as we go forward.

Challenges in U.S. Education

The other thing that bothers me, and it strikes home here, is the decline in math and science skills. I know that for our organization the lifeline of NISC is the constant flow of new graduates that are coming out of NISC. I'm very concerned that that might dry up, because I know that if it does that means bad things for NISC and other technology firms.

I picked up USA Today this morning (March 20, 2006). There's a picture of Sally Ride. She say's jobs requiring science or engineering training will rise. The last projections I saw said that math and science positions in the next 10 years will go up 25%. You're talking about opportunities for jobs, but yet, China graduated 500000 engineers in 2004, India 200000, and US 70000. I looked over that group of students this morning and I wonder where the next Bill Gates is and I wonder where the next Steve Jobs is, and where the next CEO of NISC is. I think they're out there. And we want to

work with all of our cooperative partners to make sure that those opportunities for high tech jobs are available here in ND, and are sustained, in our case, by the cooperative business model.

Conclusion

I would like to close with a quote. "Successful companies of the next decade will be the ones that use digital tools to reinvent the way they work." And if I were to boil down the mission of NISC, that's what it's all about. Take these digital tools, emerging technology, the bright minds of new graduates, and develop digital products that will change forever how rural electrics and rural telephones do business, and the efficiency by which they deliver their products to those people in the rural-most parts of the US.

I thank you for your time.