13 ways iSqFt builds success with software and services for the construction industry

by Adam Stone, Senior Writer,**SoftwareCEO**

Sometimes it takes an outsider to see things clearly.

Dave Conway worked in the construction industry for years before becoming president and CEO at Cincinnati, Ohio-based **Construction Software Technologies, Inc.** — commonly known as **iSqFt** (and pronounced "I-Square-Foot".)

But what Conway lacked in software experience, he more than made up for in business smarts.

Founded in 1993 to do job-estimating software, the company made a major coup in 2001, beating out 200 other companies to become the exclusive partner of **Associated General Contractors of America** (AGC).

A trade group representing 30,000 commercial contractors, AGC has been opening doors for iSqFt ever since.

iSqFt took spot 131 on the 2005 **Inc.** 500 list, with three-year growth of 763 percent. The year before, Inc. ranked it #50 overall, and first among construction firms.

Conway himself was recognized as the **Ernst & Young** 2005 Entrepreneur of the Year in technology in the South Central Ohio and Kentucky region, among other accolades.

In a recent conversation, he gave us an in-depth look at his fast-growing company.

Breaking news: iSqFt to merge with competitor.
Then we heard the latest word.

Just a few weeks after we spoke, news broke that the company plans to merge with a major competitor, Denver-based **Northstar Exchange Corp.** (also known as Construction Information Network.)

The new company will be called iSqFt, its headquarters will remain in Cincinnati, and Conway will stay on as president, CEO, and chairman of the board.

The deal is worth about $50 million in stock and cash; the new company will have revenues of about $20 million.

"By combining the strengths of these two firms, we have further established ourselves as the undisputed leader in our marketplace," says Conway.

They describe their marketplace, by the way, as "online pre-construction management services to the commercial construction industry."

Conway's many strategic moves
The merger is only the latest strategic move that Conway has made in his push to dominate his marketplace.

Almost at the outset, he decided to get away from traditional software licensing. Instead, he offered a web-based service long before the term "software as a service" was coined.

That gave iSqFt's customers better access to the blueprints, plans, and documents they're eager to get their hands on.

But there have been challenges.

Construction is not the most tech-savvy industry. Some new ideas flopped. And the company missed the VC boat, although this turned out to be a good thing in the long run. (More on that later.)

Here's what Conway told us about the management philosophy that has driven his firm's success. And it all makes sense, in light of the planned merger.

Success building tip #1: The correct order is: Horse first, then cart.
In other words, find a market with a big problem.

When Dave Conway took the helm at iSqFt, the company had one notable asset: a legacy software product that allowed users to interact online with construction blueprints. You could use it, for instance, to calculate the square footage of a space, and nail down the exact area of a room.

It was a solid piece of software, except for one big drawback: Practically no one was posting blueprints online. The industry had not yet made the leap. So the market for this tool was limited.

Conway says the six-person firm was generating revenues of only $150,000 a year.

But the new president and CEO still saw promise.

"There was an interesting little idea in there," says Conway, who had cut his teeth in construction supplying flame-retardant materials to the healthcare industry.

OK, so he didn't know much about software.

"But I had the market knowledge," he says. Having sold to construction firms and watched them at work gave him "a fundamental understanding of the pain associated with moving documents around the industry."

How painful was it? Funny you should ask. In 1999, Ernst & Young estimated that **FedEx** alone was making $500 million a year moving construction documents around the nation.

Half a billion. Just for FedEx.

Looking at numbers like those, Conway had a pretty strong sense that there might be a market for any product that could cut the time, effort, and most of all the expense associated with handling construction documents.

And he firmly believed that he had the makings of such a product already at hand.

Success building tip #2: Think locally, act locally.
Judging by the numbers, it seems safe to say Conway's read on the situation was right on the money.

The company posted 2003 revenues of $5.4 million, and 2004 revenues of $9.2 million, with 2005 coming in at about $12 million. Headcount was up from 90 in 2004 to 160 at the end of 2005.

Certainly market demand played a big part in that growth, as the construction industry became wise to the digital world. But it takes a savvy hand to play that growth effectively.

And it takes an even more capable entrepreneur to actually drive that growth, creating a market as he goes. That's very much what Conway did.

Preaching the gospel of digitized documents state by state, and region by region, iSqFt helped create its own growth.

"Construction is all local. So you have build networks," Conway says.

Success building tip #3: Leverage industry associations and networks.
Fortunately, the associations were already in place in the construction industry.

But for Conway, this meant forging deep ties with those construction trade associations, and selling them on the idea of online document-sharing as a potential member benefit — something they could even resell at a profit.

Here's how it works.

A trade association gets paid by its members to collect paper documents, and make those documents available to contractors looking to bid on jobs. Conway signs a long-term contract with each association to become the exclusive middleman in the process.

To build on the connection with an association, iSqFt follows up with local seminars showing contractors how to use the service.

Those relationships have helped determine the company's marketing model. Rather than market its software as a one-off product, iSqFt bills itself largely as a service provider.

Success building tip #4: Spoon-feed your users, if they're not techno-savvy.
In other words, KISS.

Conway readily admits that his users are not among the first to leap to their keyboards in search of solutions.

"It is not a tech-savvy industry," he says, but it is "an industry with a thirst for efficiencies."

Tell a construction boss that your software will streamline the cumbersome processes he contends with every day, and he will stop and listen. Find, read, and print documents faster and easier? Show him how, and he will buy.

But how do you convince him?

As Conway sees it, the less technologically sophisticated your audience, the more important it is to give them software with the fewest possible bumps and detours.

"We've spent a lot of time making the software as simple as it can be," he says. "We monitor the number of clicks it takes to get to the information you want, and then we go back and work hard to minimize, not just the number of clicks, but also the time it takes to get there."

Each new iteration of the software, and each new process in the mix, is put through the wringer at different connection speeds to make sure it will work for all users.

When things are too slow or take too many clicks, the developers have a number of remedial strategies. They can rearrange the logic to cut down the number of steps, or reduce the file size to make things run faster.

At the same time, the developers are always pushing to add new tools, without bogging down the system. The plan is to build a smooth, straight road that ends at a destination rich with useful information.

Success building tip #5: To build real value, add new functions that everyone can easily appreciate.
That's a great goal, of course, but how do you do it?

iSqFT did it by building lots of useful functionality into their web-based service.

For example, the "Internet Plan Room" helps subscribers looking to bid on public projects. They can search current projects by specific locations, keywords, or phrases; then they can view plans, specs, and addenda on-screen.

ISqFt's users can also:

- receive instant updates when changes occur,
- use plan-viewing software to quickly find accurate area, distance, and item counts,
- use the built-in ordering system to generate printouts in their own office, on **HP** drum plotters they bought at a discount, thanks to iSqFt.

You don't need to be a construction-industry guru to see that this is a pretty meaty offering.

Success building tip #6: Don't develop anything without speaking with end users.
With an industry that's generally tech-resistant, there are only so many functions that iSqFt could add.

How to choose them, and how not too, makes for an interesting tale.

Typically Conway and his development team use multiple inputs to drive their decision-making process for new features. They rely on customer advisory panels. Industry experts inside the company give input and direction. All tech support and sales personnel are trained to formally process customer suggestions, and pass them back to a steering committee that oversees product ideas.

The system does not always work, however, and Conway can think of at least one occasion when things fell flat.

The management team was sure that if they created the capability to search projects outside local geographic areas, customers would eat it up. "We got excited about it real quickly. We thought it was a no-brainer," Conway says.

The company spent several months developing an offering, but in the end, customer interest was negligible.

As it turns out, "a disproportionate share of our customers work a local market, and just don't have a lot of interest in projects outside of their market," Conway says.

The lesson learned? Don't take a step, don't so much as wiggle a toe, without talking to your end users first.

"As good as you think your idea is, it's still a good plan to run it past a cross-section of your market," Conway says.

Success building tip #7: Trim the sails tight, and don't leak cash.
Before any exciting development could begin, Conway had to find some cash.

More to the point, he had to stop spending the stuff.

One of his first commands to his crew was to figure out where the ship was leaking, and to plug the holes quickly.

"We knew we had to get the costs of the operations in line with the revenue we could generate," he says.

That meant bringing down the physical costs of the operation.

"We convert half a million paper documents to digital files a month. If you can't do that for pennies, you can't build a sustainable business. So we really worked hard on using our own resources, using our development staff to create the most efficient method possible."

For Conway, this focus on the bottom line was more than just short-term practical necessity. It's a business fundamental.

"If you listen to what your customer wants, and you can provide it, you can build a business. But only if you get your costs in line."

And is he satisfied yet?

Never."

To make sure things stay lean, he does his homework with analytics. "We look at the number of files converted, we look at return on sales and marketing dollars, and we look at our retention rates."

In every case, revenue had better outweigh expense, or else the boss will be asking some tough questions.

Success building tip #8: To expand your market, plan an organized campaign.
Without a doubt, the growing acceptance of technology in construction helped spur iSqFt's impressive run.

But strategic thinking on the part of management helped push that upswing into a genuine business coup.

As Conway describes it, his strategy is methodical and exceedingly organized. The first premise is geographic growth. The business has expanded from region to contiguous region, with the company's base of operations doubling from two years ago to about 40 states today.

How does this happen?

First, a market-development team comes in to evaluate each potential market, and begin lining up partners who can provide the content, and introduce the service to future clients. A second team follows to set up sales seminars, and begin building customer relationships.

Almost half of those sales seminars, by the way, are conducted online. They're essentially one-hour demos of the offering. Anyone who wants to see more can have a limited-time trial to use the site for themselves.

There are lots of moving parts here: the need for a major partner organization, the size of the market, the readiness of prospects to attend sales seminars.

Given all these variables, the launch window is broad: It takes anywhere from three to six months to get operations up and running in a new city.

As each market comes online, it gets its own web-based "plan room" where clients can investigate the system, and access proprietary information on local construction jobs.

"Running parallel to all this is a separate outside sales organization, on the payroll, but not in the home office.

Each salesperson works a different region and pursues a different class of client. While others talk to subcontractors — plumbers, electricians, and so on — this outside team is devoted to courting general contractors.

These are the big fish in the construction pond, the people who coordinate all the work on major construction projects, and actually hire all the subcontractors.

The key word here is "methodical." In keeping with his philosophy of leaner-is-better, Conway has taken pains to organize a sales process that's as precise as can be.

Success building tip #9: Buy what you need to fill in your gaps.
Organic growth has driven iSqFt's geographic expansion.

But that expansion has been helped along by a number of strategic acquisitions, both of particular technologies and of whole companies.

In August 2004, the company purchased **BidFax** from **MC^2** of Memphis, Tenn. BidFax is a bid-management application which was already being used by 2,600 construction companies.

Conway saw promise in the Windows-based program, which allows users to send bid invitations, job changes, and requests for information from the desktop by fax, e-mail, or mass internet fax.

This came hard on the heels of two acquisitions in June 2004.

At that time, the company acquired **BuildPoint** of Redwood Shores, Calif., a provider of online bid-management services for some of the nation's largest general contractors.

That secured a West Coast launching pad to be used for future expansion.

That same month, iSqFt acquired **US Projects**, an online provider of regional planning news and information in Omaha, Neb.

That acquisition made available a wealth of data on commercial construction projects, representing more than $12.7 billion worth of business opportunities. The net result was ready-made content for iSqFt's new and existing subscribers.

And now, of course, there's the planned merger with Northstar Exchange Corp.

"We expect this merger will allow us to expose our general contractor customers to a greater number of subcontractors, while also giving our subcontractor customers additional opportunities to find both public and private work," says Conway.

Sounds like that would make everybody happy.

All these M&A have been part of the effort to create a company that's both deep within its vertical market, and broad in geographic scope.

"We are trying to provide the best possible general contractor/subcontractor network in each market, so the things that enhance those relationships ultimately are the things we are looking to expand upon," Conway says.

Success building tip #10: Your cash should flow from customers, not VCs.
Picture this: It's the year 2000, and you look out your window to see a VC riding on a fire truck.

The hose is open full-throttle, and he's spraying great arcing fountains of cash into the air. Down in the street, would-be software executives have their heads tipped back, gulping down the stuff.

But by the time Conway made it to the curb, the flow had been cut off at the source.

What seemed like bad luck then seems like good luck now.

In the waning days of the millennium, about 250 software companies were promising to deliver what iSqFt offers today. A few years later, the number of web-based providers of this kind is down to maybe a dozen, though many offer similar services through traditional software licensing.

So that's a dozen direct competitors left, from a field that once held 250 players. Most of those died when the dot-com thrill ride ended. How did iSqFt survive?

Conway says bad timing made a world of difference.

As a company based in the Midwest, iSqFt initially had trouble getting the attention of potential investors. By the time the organization was on the map, VC money was no longer flowing so freely. Meanwhile, some $1.5 billion in venture money had been raised in this arena.

So the company missed out — but it was all for the best.

"Unlike some companies, we actually had to find customers in order to survive," Conway says. "In hindsight, we were fortunate. It was the best thing that ever happened to us."

Without fat cash reserves, iSqFt had to build good products and win paying customers.

Driven by necessity, the company built a 1,000-strong customer base in what was then an unheard-of niche. Only then was it time to seek out venture money.

In 2002, the company landed $5.5 million from a coalition of venture firms led by **River Cities Capital Funds**. The company landed another $2 million in 2003.

Those investments were intended largely to support the expansion of the company's sales and marketing operations.

Success building tip #11: Make your natural leaders do the hiring.
From 2004 to 2005, iSqFt cranked up headcount from 90 to 160 employees. That's a 75 percent increase in a single year — the kind of hiring spree rarely seen these days.

How did they pull off such a feat?

Conway is a firm believer in the maxim that good people hire good people.

(This is how it's often stated as an industry chestnut: A's hire A's, but B's hire C's and D's. And once you have a lot of C's and D's running around your firm, the end is near.)

To get back to iSqFt, Conway wants his hiring done by managers, not by HR executives distant from the actual scene of the work.

"We require our managers to hire their own people. They do all the interviewing and selection. HR delivers the support functions, but they don't do any of the real hiring work."

To make the actual recruiting happen, he picks a leader from within each business area, scanning diligently for the front-line managers he considers the best in the bunch.

"You have to be careful who you put in charge of the hiring process," he says. "You have to have a first-rate person, because otherwise he will certainly hire people who are not as effective."

How did he hire that first group of winning managers?

He didn't, really. He just moved people up as they demonstrated their abilities. When a department got big enough, the leading player typically became the manager. In this way, an organic core of trusted leaders emerged.

It doesn't always happen that way. Conway will sometimes bring in an outsider to take a lead role, when there's no suitable person inside. But he prefers not to.

"When I have the choice, I will take someone who is already in the company because of what it says to the others about their opportunities to grow," he says.

Success building tip #12: Love your vertical, and keep on researching it.
Conway didn't come to lead a software company through the usual route, i.e. by working in the software industry.

Rather, Conway is a construction-industry guy, an outsider. So you might expect him to spend all his free time boning up on software issues.

In fact, Conway is more likely to be reading a construction-industry publication. While tech know-how is useful, he says, understanding your vertical really makes more difference in selling software.

"I want to learn more and more and more about the market and its needs. That is what helps us drive our development," he says.

"My staff is constantly going to seminars to stay on top of the technology, but what I'm trying to do is to focus more on the market."

Software CEO though he may be, he still goes to construction-industry conventions, reads the trade magazines, and works with construction industry advisory groups.

Success building tip #13: The process is paramount.
Conway's "outsider" perspective gives him a special view of the software industry and the role of the software CEO.

As he surveys his peers, and the demands of the software world, he sees a fundamental trait underlying this industry that makes it quite different from so many others.

In software, he says, it's all about the process.

Especially in the SaaS model, "the combination of software and services makes it fraught with both opportunity and challenge," he says. "It has a traditional product sales component, but because we are subscription-based it has a recurring revenue component. It's different from selling widgets."

And it's different from making widgets, too.

"If you are creating a hard physical product, even a sophisticated product, you can look at it and see that it's done and ready to go," he says.

"With software, it's different. You don't know it's ready to go until you run it through enough iterations. It's not like you can pick it up and see that it's done."

All those multiple iterations are the key to success. Unlike the linear process of widget-making, which may include design, fabrication, and testing, the working life of a software CEO is more of a loop.

"To manage a business like this, you really have to readjust the combination of patience and persistence," Conway says of his own experiences.

"Developing software is part science, and mostly art. To really get it right, you have to have a clearly thought-out process, and you have to be patient enough to let that process run its course."

At iSqFt, the process has been running smoothly for years, with new features slowly entering the mix, new markets approached with deliberation, and new acquisitions added to the company.

These slow and steady steps have added up to big growth over time.