By Jim Harter

In my career, I have been involved in four different entrepreneurial operations. Some were successful. Some were not so successful. But all were great adventures and more importantly, great learning experiences. I hold an MBA from the Katz Business School at the University of Pittsburgh and took two different classes on entrepreneurship but never heard most of what I learned in real life. This document chronicles the lessons learned from each endeavor.

Alpha & Omega ICS - 1986-1988

I worked with the founder, Michael LaCognina, nights & weekends on multiple passes of the business plan. I created the basic architecture for the product that now has 200 installations worldwide

What I learned:

- 1. There is a Catch 22 to startups.
- You can't get venture money without a customer.
- You can't get a customer without a product.
- You can't develop a product without venture money.

Michael LaCognina used a lasso approach to bring them together. He had to find a venture firm that would commit if he found a customer. Then he found a customer who saw it as an opportunity to buy custom software for the price of packaged software. It was an act of ultimate finesse.

2. Startups require great personal sacrifice.

Michael put his life savings on the line and nearly lost it. He also worked nights and weekends to pull it off. It nearly cost him his family. In the end, it was a sacrifice I was not willing to make at the time. My children were young and I wanted to participate in their lives. I knew I would not be able to if I had joined Alpha & Omega full time (or is that double time).

3. Venture Capitalists want you to succeed but hold you to your promises.

They never take so much equity that the entrepreneur doesn't feel like it is not still his company. They don't want to crush the entrepreneurial spirit that birthed the company to begin with. However, VC's are not running charities. If you promise to deliver a certain level of sales by a certain date and you don't, they will bring in someone who will.

4. You need a swagger to succeed.

The odds against an entrepreneur are staggering. All of the statistics say you won't succeed. Everyone tells you that they would never take the chances that you are. For every person you talk to who thinks you are on to something good, there are 10 more who think you are crazy. But you have to be so sure that you are right and they are wrong that you are willing to take the gamble. This takes a pretty healthy ego. You have to have complete confidence in your own abilities. It's you against the world and the world doesn't stand a chance.

CISCORP - 1988-1997

Technically, this was not a start-up but an intrapreneurial effort. I took a floundering beta release product and carried it through its entire life cycle. I developed a world wide distribution network of VARs, dealers, and telemarketing sales resulting in 450 installations in 25 countries and \$2.4 million in profit.

What I learned:

1. Creating a niche product produces great results and no competition.

ATP6100 ARC added vital functionality to Tandem's asynchronous communications controllers. The product was the only solution available in the whole world. It was a true "Pull" product. It wasn't just a better mousetrap, it was the only mousetrap. But it wasn't such a big market that it would attract a lot of competition. It created a very profitable opportunity but was kept reasonably priced so that nobody saw it as a business that they wanted to get into.

2. You need to negotiate WIN-WIN agreements.

Value added resellers were the single largest source of my revenues. I listened to each of my resellers to determine their pricing structures. Some sold their software on a perpetual lease basis with annual support. Others sold it on an annual lease basis. Some priced their software based on the size of the Tandem computer. Others based on the number of data lines being supported. Some wanted to pay once for the software up front and have no further financial obligations. Others wanted to keep the up front costs down but were willing to pay on-going fees. Some were creating new products and had no legacy customers. Others had a large install base that needed to be upgraded with my software.

By listening to the VAR's needs, I tailored a pricing schedule that met their requirement in term of how the product was priced and when payments were made. Basically, I tied the royalties to their cash flows. If you set up an arrangement where the customer pays only when they have revenue, you take the risk out of the equation for them and they in turn are willing to pay more. Thus I was frequently paid disproportionately more than the product's impact on the total solution.

3. Teaming is the route to a comprehensive solution.

As part of a total solution, I realized that my VARs needed me. I also recognized that Tandem Computers was always happy to help me in any way that they could. My little utility helped move computers.

My last assignment at CISCORP was to help birth the Sun Microsystems consulting practice. Sun wanted us to be a reseller of their hardware and to provide consulting services to support our customers. We could easily have set up an organization that did Solaris system management and leave it at that. However, there was very little value-add to that and no long-term advantage. In 1997, the hot topic was the Internet. Few knew what it could do and almost nobody had real expertise to deliver. We chose to become turnkey Internet solution providers. Thus we developed a strategy to attack this market. We had the Sun systems to sell. But we needed to assemble the rest of the team. CISCORP already had some Oracle expertise. We became Cisco Systems resellers to add the network router, switch, and firewall components. We developed a relationship with ICONnet to provide Internet backbone services.

Finally, we teamed with Netscape to provide Internet Server and Client software. We were ready to roll. We had brought together all of the necessary players in a WIN-WIN environment and were prepared to provide a comprehensive high value added solution to a customer who couldn't do it without us. Unfortunately, CISCORP was also a major Microsoft Solution Provider. In fact, it represented about 25% of their revenue. Once the Netscape relationship was announced, some interested parties in Redmond, Washington displayed a level of disapproval. CISCORP management in fear of souring that relationship backed off and the grand Sun-based Internet solution group died on the vine. I guess that demonstrates a Win-Lose arrangement.

4. You need to be creating the next generation product.

This is one that I learned all too well. All products have a life cycle. During the Cash Cow stage, you must be reinvesting a portion of the profits into the next generation product or you will have no product ready to replace the aging product as its revenue declines. While I was commissioned to come up with a new product, I was never given the resources to actually pull it off. The profits were pulled out of my area to subsidize less successful CISCORP enterprises.

G-Delta Technologies - 1994-1995

While I was still working full time at CISCORP, I worked with 3 others to try to bootstrap a software company. The key product was a golf scoring system that placed a networked PC at each tee of a golf course. Golfers would enter their scores and side bets before teeing off for the next hole. League and outing participants could check on their relative position adding suspense and a new level of strategy to the game that hadn't

existed previously. The course operators benefited by increase revenues and more efficient course operation. The idea was great but unfortunately the company failed.

What I learned:

1. The team is important.

A startup company doesn't have the luxury of carrying any dead wood. Every person must contribute. The team unfortunately had only two people with computer experience. I was the president and John Gielarowski was the lead programmer. The other two included a Lutheran minister and a chef. We were spiritually in line and we ate well when we got together but we didn't get much else out of that half of the team. The chef quit his job to work for the company full time. To this day, I'm not completely sure what he really contributed. He had some drafting skills and made nice looking mock-ups of the proposed hardware. The minister actually tended to pull the team members off of their required tasks to help with special projects at the church. Interestingly, he got in hot water with his congregation because they saw him as being distracted from his calling by getting involved in this company. Suffice it to say, it was a no win situation. John Gielarowski initially tried to hold down a full time job and develop our system on the side. Later, he quit his paying job to dedicate himself completely to the task but he couldn't because there wasn't sufficient cash to support his family. So he ended up working on the side anyway. As an absentee manager, I certainly didn't do what it took to keep the company on track. This was the single biggest lesson that I learned. It was a lesson that will never be duplicated.

2. Wrong product, wrong time, wrong company

You have to choose a product that your target market is willing to buy. While the concept was good, the technology was not quite there. It was a stretch. The cost of weather tolerant computers that required short haul modems and underground wiring throughout a golf course priced the product out of reach of all but the most exclusive golf courses and they didn't need our system to help sell corporate outings. Additionally, nobody at G-Delta Technologies had good connections into the golf industry. We were a small no-name company in Bridgeville, PA wherever that is. Finally, the age of GPS's was coming on. Before we could ever have gotten our product to market the first GPS based systems were coming into vogue. They performed much of the same features but mounted on the golf cart. Thus the units paid for themselves through increase golf cart rentals.

3. You need to make a living so you find a product that will sell.

I know of at least one other start-up that was founded on one idea but kept the doors open by creating an unrelated product or service to pay the bills while the other product is being created. The same was true for G-Delta Technologies. When it became clear that we could not bring the original product to market, we switched to an auxiliary product that was also needed at golf courses. That is point of sale software. A computer reseller

approached us to assist one of his customers who needed a point of sale system. We recognized the potential synergy with our long-term product goals and pursued the opportunity. And frankly we needed the money.

Unfortunately, we waited too long to locate a viable product to support the company. We ran out of funds and had to close the doors. John took the contract for the POS system and carried it forward by himself. The Lutheran minister returned to full time pastoring. The chef returned to the kitchen. And I got my evenings and weekends back. We all left wiser for the experience.

4. Some times you need to cut your losses.

As G-Delta Technologies was being dismantled, I made a proposal to buy out the two non-productive partners and continue development with the lead programmer. I made what I thought was a reasonable offer that would pay back the other investors based on a royalty on future revenues. I was willing to be patient and negotiate a favorable settlement.

However, John was financially strapped and needed to generate immediate income for himself and was willing to pay a much more generous royalty in order to secure the cash flows from the initial point of sale development contract. I looked at his proposal to go it alone and decided that if he thought he could make a go of it at his more generous royalty, then let him have it. So that is what I did.

He struggled to keep his head above water for the next 2 years because of the burden that he had contracted for. He learned a hard lesson in business valuation but survived to tell about it.

Point of Sale Technologies - 1997-2002

Out of the ashes, the Phoenix rises. Point of Sale Technologies is the company formed by John Gielarowski, the lead programmer. During the two years following the closing of G-Delta Technologies, Point of Sale Technologies (we do business as TallySoft) was a sole proprietorship under which the TallySales Management System was developed. Shortly after Christmas in 1996, he approached me to join him to commercialize the product that he had been developing under the original custom development contract from G-Delta Technologies. In April of 1997, Point of Sale Technologies was incorporated as a class S corporation.

What I learned:

1. Perseverance is essential for success.

If at first, you don't succeed, try, try again. G-Delta didn't fly, but John didn't give up. The vast majority of successful entrepreneurs have had at least one failure before they

were successful. Most have more than one. John was involved in three startups, as have I - four if you count CISCORP.

2. Don't spend money if you don't need to.

Early on we decided not to seek any venture capital to launch the company. The valuation of a company with 2 customers just wasn't going to make it worthwhile. However, whether you use venture capital or not, a start up company must preserve capital. Thus every decision involving cash outlay must be carefully weighed. POST could no longer operate out of the founder's house. We needed office space. Rather than move into traditional office environments at upwards of \$15 per square foot, we searched and searched and located a building that was undergoing renovation. We became an anchor tenant at about 1/3 of that rate. Mind you, we had to put up with certain inconveniences. The bathrooms were not great. It was not a prestigious location. We had a gravel parking lot. Part of the building was always under construction. However, in the process, we saved upward of \$60,000 in rent. The difference in rent may well have been the difference in life or death of the company. But we had a real business address and the credibility that it entailed.

This same economical approach was applied again and again. We purchased used office furniture. We purchased refurbished PC's rather than 1st run ones. Rather than purchasing a laser printer, a fax machine, and a copier, we bought a multifunction machine. It was probably the best purchase we made in the early months of the company. It served us well for more than 4 years.

We did as much of our own work as possible. We ran our own network and telephone wire. We did our own build out for cubicles and offices.

Our credo was "Never spend money if you don't have to". Every purchase was scrutinized. Precious capital was preserved.

3. You have to wear many hats.

One reason that many startups fail is that the principles come from big companies with large support staffs. When they get into the startup, they find themselves needing resources that used to be a phone call away. You don't have the same luxuries in a startup.

You better be good at contacts, because you can't afford a lawyer. You better do a good job at writing marketing literature because you can't afford a marketing firm. You better be good at writing user documentation because you can't afford a technical writer.

Frankly, you better not have a big ego, because you will need to recognize that no job is beneath you. You are not just going to make the coffee. You are also the one who is going to clean the coffeepot. You better be good with a vacuum cleaner because you can't afford a janitorial service.

4. It is hard to act strategically when you need to make payroll every two weeks.

They teach you to write a business plan in MBA school and you need to if for no other reason than to know where you want to go. But once you write it, you must face the fact that the business plan will not pay the rent. You have to sell product and get the cash in. Some times you have to throw out the business plan just to make payroll. Any source of revenue is good when it means paying the bills. Strategically, you need to standardize the product but a customer will not buy unless it has this new bell or whistle. Standardization goes on the back burner in favor of closing the deal.

5. Cash flow is king.

Related to item 4, you need to structure your entire business around maximizing collection of revenue and postponing payment. You need to do every thing possible to negotiate terms from your suppliers while simultaneously working to maximize up front payments from your customers. In our case, we insisted on 100% of the cost of the hardware at the time of closing. We maintained an almost zero level of inventory. No hardware was purchased until we received the down payment check.

6. You must resist borrowing from Peter to pay Paul.

While we always insisted on 100% of the hardware at closing, we always had some margin on the hardware. But conversely, while we may have had terms with our suppliers, we needed to make sure that we set the cost of the hardware aside. The few times that we cheated and spent that money (occasionally on accident but most often deliberately) it came back to bite us. It resulted in problems with suppliers that needed to be addressed expeditiously and usually at a cost in terms of our relationship.

7. The customer is your boss.

A lot of people think that if you own your own company, you are your own boss. You can't be further from the truth. Your customers are your bosses and they are a pretty unforgiving lot. Early in the life of a company, word of mouth is the most important (and sometimes only) advertising that you have. You success is completely tied to their happiness. You must make customer support first and foremost in your mindset.

In our second installation, we released a version of our software that had a Microsoft bug in it. We didn't catch it in our testing because it only appeared when large numbers of computers accessed the database at the same time. It resulted in a corrupted database. We worked around the clock from Thursday through Sunday to rebuild their database from scratch and it wasn't even a bug in "our" code. But it was an issue to our customer and we were determined to make it right for them.

8. You need the right kind of employees to pull it off.

The owners aren't the only entrepreneurs in the company. Your employees are entrepreneurs as well. They are betting almost as much on the success of the company. They recognize that they may not have a job next month if they don't do what it takes to generate the income to pay that salary. When you hire your staff, you must look for a customer driven focus in your candidates. Don't hire anyone who doesn't have that focus.

9. You must provide non-monetary compensation to keep the best folks.

You will never be able to pay the same salary to begin with. Therefore, you must find other ways to attract and retain good employees. Thus you need to load up on non-cash compensation. Certainly working in a startup provides experience that your employees would never get in large companies. There is an excitement of being in a dynamic growth environment. You need to concentrate on esprit-de-corps - everyone pulling together for a common cause. You need to make the workplace fun. Empowerment must be the norm. Avoid any semblance of bureaucracy. Finally, you must make sure that you set up the structure that employees who stick with you through the lean times will reap the financial rewards when the company becomes a success.

10. Owners have the right to work an infinite number of hours for what's left over.

Everybody gets paid before you do. Your suppliers, your employees, and Uncle Sam each take their slice out of the revenue pie and you get the leftovers. In fact, that is the point of capitalism. The owners get to keep the profits. This isn't bad once the company gets to a reasonable level of profitability. But until that point, the pickings can be mighty slim.

11. Revenues never grow as fast as you thought they would.

You put together a business plan and create a budget and make plans to generate revenue at a given rate. No matter how pessimistic your plans may be they are not pessimistic enough. By nature, entrepreneurs are very optimistic folk. In fact, I haven't run into an entrepreneur who isn't one. They have to be or else they would never have started the business in the first place. Unfortunately, this tends to spill over to every area of the business. They think that they will close more sales than they do. They think that the sales will be bigger than they are. They think that an installation will go faster than it does. They think that customer support won't cost as much as it does. And they think that customers will all pay on time which they don't. These are harsh realities that the entrepreneur learns the hard way.

12. Networking is a way of life. You must make time for it.

You may think that you are too busy to network and you probably are but you have to make time to network. The more people that you know (and equally important, the more people that know you), the better your business will be. Networking provides help of all

kinds that generally doesn't cost anything. If you neglect to network you are missing out on one of the most valuable resources available to an entrepreneur.

13. Right is right. Wrong is wrong. Do Right.

Integrity and honesty are the keys to your long-term success. Because so much of your business is based on reference sales, you must deliver value with each sale. This means that you must fulfill your promises and deliver an honest value to the customer. Because you personify the company and there are so few data points for people to extrapolate a true impression, you must make sure that every encounter reinforces that you are a person of character.

However, ethics is not about enlightened self-interest. Rather it is recognizing the difference between right and wrong and choosing to do right. In fact, you must be a person of character from the start. That is because you really can't fake it. You are faced with moral dilemmas on a daily basis and the temptation is to bend here and cut corners there. It is simply a result of having to make tough tactical decisions based on short resources. A person of integrity resists the temptations to compromise in spite of the short-term (or for that matter long-term) gains.

Summary

The modern day entrepreneur is like the pioneer of the Old West. He left the comforts of Boston and went to Missouri. He bought a covered wagon and everything he owns is in the wagon. He knows that there is 2,000 miles of wilderness between him and his destination in Oregon. There is a vast desolate prairie to cross, rivers to ford, mountains to climb, and Indian attacks to ward off and he has to get there before winter hits or he and his family will die of exposure. He will have to live off the land with no luxuries. But the dream of a new life in Oregon beckons and he is willing to suffer the hardships because the rewards are worth it. I am proud to be one of those pioneers.