



Contractor Case Study

In 1998, LMS Irrigation felt the need to have greater control of their business and the desire to see the company grow. A small irrigation company with sales of \$645 thousand, they had two full-time service personnel, each driving a company truck.

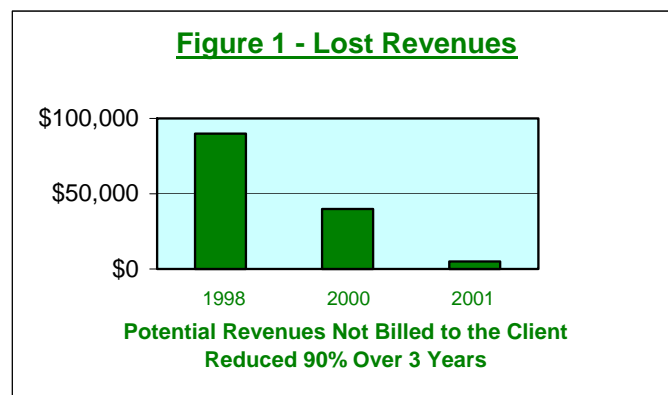
Every morning the service technicians would drive to the office to receive that day's work orders. They would pick up the paper work orders and turn in the ones from the previous day. Several problems were immediately evident with this system.

- The process of dealing with so much paper was inefficient and cumbersome.
- Lost work orders.
- Incorrect records of hours and parts due to illegible handwriting.
- Incorrect records of travel and mileage due to illegible handwriting.
- Errors in all records from typos, due largely to double entry.
- Lack of consistent and accurate customer information/history.
- Excessive in-office time spent correcting mistakes, dealing with double entry, and translating work orders into readable documents.

Upon realizing the excessive number of errors, the lack of efficiency, and the poor control of the company overall, it was realized that change was necessary. By examining business practices and procedures the company was able to name a number of glaring problems and opportunities for improvement:

- Only 50% of the available billable hours per day were actually being billed. The billable time was half that of the hours paid to employees via their timecards. The paper system did not allow for any such comparison to be made.
- There was no method for the company to track work order status. If service technicians were unable to finish a work order, the customer was told they would return "sometime soon" to finish the work. Only 20% of incomplete work orders were completed in a timely fashion. More often the office staff was on the phone with an irate and unsatisfied customer.
- Scheduling was poorly recorded and inefficient, done using off-the-shelf database software and a paper scheduler (comparable to a beauty salon's schedule book).

- Routing was a serious problem. Because scheduling was a manual and paper-bound system, routing was coordinated according to the scheduler's best judgment. Drive-time, gas, and vehicle maintenance were at unacceptable levels.
- Schedulers spent an average of five minutes on the phone per customer. There was no method for logging customer calls, and no method for noting when a work order was scheduled or who scheduled it. Due to this lack of information, if a customer returned a call it was virtually impossible to provide them with pertinent information.
- The billing process was also tedious and paper-bound. Very time consuming, the owner was often working well beyond office hours – arriving as early as 5am some days. At best, billing was completed two to three weeks after the service was completed. Accounts Receivables was set at around 30 – 60 days.
- Inventory records were badly out of control. Due to the manual, paper-bound system, there was no way to keep an accurate count of parts used and sold. Likewise, there was no method to account for parts missing or billed incorrectly.
- Over \$90,000 was lost in revenue opportunities (services and items not billed or billed incorrectly).



After reviewing these problem areas, it was apparent that the paper system was not effective. If the company was to gain control of the business and see growth, this system needed dramatic revision.

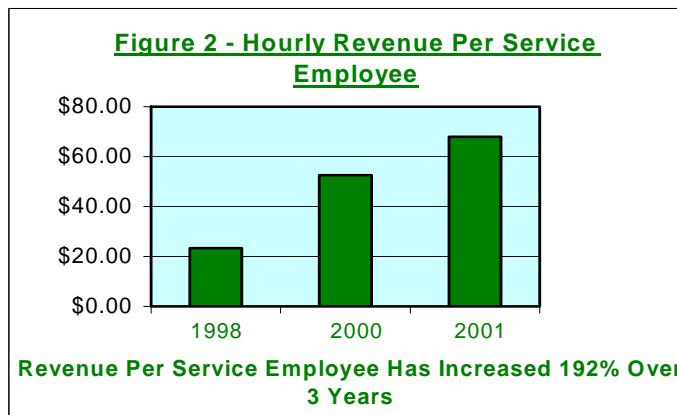
The next step was to explore a solution. LMS felt that improving their technology was the key to improving the business. In researching business solution technologies, LMS found that it is very possible to control the various aspects of business management through technology, but that it not done carefully can be very expensive.

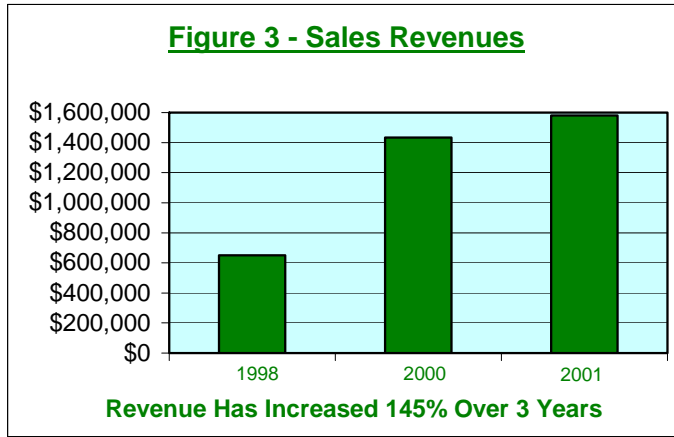
Unable to find an off-the-shelf product to meet its demands, LMS hired Vertical Systems, Inc. to develop a software database system that would provide a comprehensive solution. The expectation for the solution included a completely paperless system, from the first customer's phone call to the final billing cycle. The only paper needed was the printed invoice to be sent to the customer.

Vertical Systems created the solution, titled HindSite Software. The goal of HindSite Software was to create a paperless system that was extremely user-friendly and easy to learn. Over the past three years the software has undergone a number of upgrades and has evolved into an even more powerful management tool than initially expected. HindSite Software was able to produce the following results:

- A paperless system.
- Phone time was reduced by 75%.
- Service appointments could be scheduled or revised in under 45 seconds.
- Office staff was reduced by the equivalent of one full-time employee.
- Routing and scheduling by map code or zip code was available.
- Exact timecard capture was included in HindSite Software by tying the timecard to the work order, as accessed by a PDA.
- Travel time could be accurately accessed and billed separately.
- Inventory records interfaced directly into accounting software and were immediately invoiced.
- Billing was performed within 24 hours. As a result they were paid more rapidly by the customer.
- A minimum of one additional service call per day, per service technician was created.
- Overall revenues increased.

Due to the effectiveness of HindSite Software, LMS has increased revenues using fewer employees. Revenues have increased as a percentage of hours worked per employee. The Revenue Per Service Employee rose 264% percent over four years, from \$23.39 to \$85.09. This growth was accomplished with one less office employee, meaning another \$15,000 per year. Company sales for 2001 were \$1,580,000. Compared to 1998, revenue increased by 145% in just three years.





More importantly the net profit – both in absolute dollars as well as sale percentage – has dramatically risen. LMS attributes this growth to the use of HindSite Software.

LMS has also seen a number of other, more intangible benefits of HindSite Software.

- The use of PDA's allows the service technicians exact information, making them feel and act in a more professional manner.
- Work orders can be downloaded from home via a modem connection. Technicians do not have to waste time and money driving to the office each day and can instead drive directly to their first job.
- Due to more accurate records and more professional service, there are less disgruntled customers, allowing for a more positive work environment. The office becomes an enjoyable place to work.
- The pre-scheduling of yearly services (such as spring start-ups or winterizations) eliminates hundreds, even thousands of phone calls into the office.
- Most importantly, HindSite Software allows LMS to take better care of their customers, their key to success.

LMS Irrigation
St. Paul, Minnesota

HindSite Software
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