



INTERVIEW WITH A LARGE PROPANE DELIVERY COMPANY

By Chris Russell, President of GeoCom TMS in the USA

In this interview the customer, a large propane delivery company, has agreed to share the story behind its success and is willing to take personal references.

This 170 million-dollar company and successful user of the GeoCom TMS software distributes propane to over 114,000 industrial, agricultural and residential customers throughout Canada.

The company is currently engaged with implementing the GeoCom TMS mapping and routing products across all regions, and has had some remarkable success to date.

Sir, we understand that you are a successful user of the GeoCom TMS software. We were hoping that you could share your story with us?

Sure, our company is a national propane distributor in Canada. When we started the project, deliveries were based in branches. All branches were fairly autonomous. Because they were autonomous, they were sometimes fighting with each other for the same customers. Since each branch was responsible for its own revenue, one might try to pull a customer away from another. From a company point of view that's pretty silly.

We changed our model, so that everything is now divided into five regions across the country. The sales belong to the regions. The new territories are fairly well defined by natural barriers, such as mountains and rivers so that you won't get someone moving from one region to another.

Once, you established the new regions, were there still problems?

From a head office perspective, we would go into a territory where, for example, there used to be two branches side by side. What we would still find was that the drivers would literally drive past each other, in opposite directions, to get to customers they were delivering to. That was probably the most obvious and blatant example that we had a problem.

You could tell just by looking at it?

Yes, it was easy to see. So what we did was we took one area, a small territory, that used to have three markets bordering around it. We brought the drivers in and, using colored pins said: *"plot and pinpoint the customer locations you deliver to"*. At the end of this exercise, everyone realized that we had about five trucks within a square mile of each other at any given time.

The problem pretty much jumped right out at you at that point?

Exactly! When you have five pins, basically on top of each other, that tells you that you have issues.

So what did you do?

We contacted Martin Johnson at GeoCom, whom we had an association with, but had not worked with yet. Initially, we asked for some digital maps. We then geocoded our customer database, which allowed us to eliminate some of the obvious overlaps.

What were you using before you contacted GeoCom TMS?

A paper map on the wall with a felt marker to mark off territories.

Did you have some 'rule of thumb' standard routes?

Exactly, and from the driver's perspective, they were using route books to determine when they were going to go out and service the customer.

Were you doing any online dispatching?

Yes, we use dispatching software in our trucks. In addition we use ERP software for the back office and another package for our degree/day forecasting.

Once you had the digital maps from GeoCom TMS, then what?

We took the digital map, geocoded our customer on it, and on a preliminary level, just cleaned up where our trucks and routes were located.

Did you use the map data for anything else?

The second thing we did was share the geocoded data with our marketing department so that they could begin

advertising in areas where we could now better identify the customers we wanted to target.

For example, looking for dense areas to sell into?

Exactly - On the flip side, we needed to make decisions regarding the areas we were driving a considerable amount of distance to get to a certain customer. We needed to decide whether we were going to blitz the area to increase our customer base, or whether we should discontinue that customer.

This helped us to understand that *'every liter is not a good liter'*.

The initial mapping and rationalization of the territories helped you rationalize your customers as well?

Most definitely.

This must have done wonders for your margin and your operating efficiency?

It sure did. The first area that we looked at had three branch locations and nine trucks; we ended up closing one branch and removing two trucks. That was the first territory review we did and it's gone on from there. The optimization that we've been able to pull out of it, just on operating dollars is huge, and that's still before we did any routing. Just at the mapping level.

This was the first phase?

Yes, we are doing this as a phased implementation. We didn't want to bite everything off at once. We deliberately went through the mapping and geo-coding as the first phase and the routing as the second phase.

When you started your routing process you had already gotten the good maps and the good data?

You Bet.

And you've also rationalized your processes...?

At least on a first level we did the rationalization; we came to realize quite a bit more once we put the router in.

How long did the initial process take?

Well, it was phased across the country and took 4-5 months. It took a long time in our rural areas because we had to manually lat/long (latitude/longitude) some of our customers with GPS devices.

I understand that in Western Canada there are some remote places.

Yes, we deliver all the way up to the territories in the north, and it's a big country. Some of the addresses off

of our database said "drive highway 22 for 5k and turn right at red barn"...It's pretty hard to geocode that!

OK, so it took you 4 or 5 months to get your data together and rationalize your process. Then at some point you wanted to optimize the routes?

That's right. And as we started the process it uncovered more issues. In some ways it's both good and bad. You think, "Were we really that bad?" And unfortunately or fortunately, in some cases we found out that we were. That's part of the process as you go through. You've got a lot of people who've been used to doing things one way for a long time and think they know the best way to do it. I can't underestimate the need to have buy-in, especially at the driver level.

It may take a while but it's worth the investment to win them over...

Exactly, it's better to be slow and monotonous than to rush in and do it wrong.

Right, if they want to make it work, it will work and if they want it to fail, it will fail.

You got it. We took areas where they were eager to use it. We used them as our testing ground to prove results which made the roll out easier after that.

What was in it for them? How did you turn their heads?

A lot of them were interested in the technology and *'new toys'*.

We have often run into resistance from users who somehow felt that technology was a threat to their jobs. How did you manage that?

Well, in our case there were actually pockets that were excited about the technology. Of course there are other areas where we are still working on it. But, the value you can drive, in the locations that are willing to do it, makes the wait worthwhile.

What kind of value do you mean? Can you give me some detail on the areas that you see the return on investment and what the magnitude is?

We found about a 22% decrease in operational costs.

What operational costs decreased?

Diesel is top of the list; it made a huge impact. We also found that our maintenance cost went down because we were driving fewer kilometers to do the same job and cutting down on overtime.



A 22% decrease in costs? That's outstanding!

And that's after the initial optimization that we did with just the digital maps.

Have you figured out what the total savings are?

31% overall.

Wow, that's impressive! What's your total time frame so far? You're still rolling it out in places?

We're still rolling it out. We're about 11 months into it, and it will probably be another year before we finish the entire country. We are a 170 Million company and we are working through a merger with a larger company. There will be some economies of scale with the two companies.

You're a 170 million-dollar company. How big is your 'model' or the problem you are trying to solve? For example: How many Customers? Orders? Stops? Trucks? Routes?

Before we started we had 334 bulk delivery trucks we now have 287.

Would you attribute that to mapping and routing?

Mapping and routing.

That's great. How do you do that? Physically get rid of trucks?

Every year certain vehicles get retired. The trucks have a nine-year life span. Some of the drop was through attrition. Some of it comes from pulling them off the road and using them as spares or selling them off to other companies.

How many customers? Stops?

We have 114,000 customers and we do a lot of stops. It is different depending on the areas. Some are denser than others.

It all depends on the territories...?

Within each territory they have agricultural, city etc. so it almost reverts back to branch level and what the branch has to do. We set an expectation on each truck as opposed to one truck compared to another truck. We are always trying to improve each truck.

What do the distribution network and the asset deployment look like?

We dispatch our trucks out of the five regional offices. We have one in Vancouver, Calgary, Winnipeg, Toronto and Montreal.

So the planning scenario would be, stop me if I'm wrong, each of these regional offices has a number of customers that they service. Those customers produce some combination of live orders and forecasted demand from the degree/day system.

Yes...

Then this demand hits - drops down into the routing process and you figure out what order goes into what truck in what sequence.

Correct.

From where do the trucks leave and return?

We have 138 branch locations that they leave and come back to.

Do you have any stopovers or domiciles outside the branches?

Occasionally in the North, but very rarely. There may be things like ice bridges in the winter.

What's the length of time or schedule in the routing process? How often do you generate routes? How often do you download order changes? How dynamic is the process?

We forecast 7 days in advance every day. We route every single day and we are also routing into the future. As the dynamic of each day changes we re-route. Within the day we basically have manual intervention for emergencies.

Besides the reduction in cost, do you see the other side of that, which is a bump in sales if you do it right?

Yes, if you involve your Marketing and Sales departments, you will definitely be able to increase your profitability and your customer base by understanding the densities and the areas that your customers are located in. If you have good competitive intelligence you can geocode them as well to understand what your competitors base is like.

So you can go after the profitable business and lead them towards the unprofitable business?

Sometimes it makes sense to give up certain customers to your competition.

The Marketing people would call that Market lift. Do you have any idea how much this is for you?

Yes, although this is difficult to measure directly, they estimate a 6% lift in sales due to the project.

Thanks for sharing your story with us.

