**UltraShip**TMS
Intelligent Logistics

# Why TMS Implementations Underperform
## The Importance of Managing Program Maturation

**Transportation management systems (TMS) are valuable tools for improving visibility into transportation spend and exerting control over this critical piece of the supply chain. More than ever, with the increasing cost of fuel, volatile global economies, and the accelerated adoption of just-in-time manufacturing, companies are seeking ways to improve on-time delivery of products, while lowering the overall cost of transportation.**

The advent of effective, affordable, Software as a Service (SaaS) solutions for transportation management has prompted a significant increase in the number, type and size of companies interested in engaging TMS software. Eager to realize the promise of savings and efficiencies, many companies have already implemented TMS solutions. The results achieved by these earlier adopters are of particular interest to those organizations still on the fence about whether or not to embrace TMS as a supply chain strategy. Some TMS users report great levels of success while for others, results remain frustratingly elusive. Prospective TMS users want to know why some succeed where others fail. Moreover, frustrated users want to know why their implementation didn't live up to their expectations.

In getting to the root cause of failure it's easy to point the finger at TMS providers themselves, many of which do a far better job of selling the solution than implementing and – most importantly – supporting their applications. In many cases, providers over-promise, raising expectations high, only to under-deliver leaving dissatisfied and sometimes discredited supply chain managers in their wake. Yet, the organizations that find

> Some TMS users report great levels of success while for others, results remain frustratingly elusive. Prospective TMS users want to know why some succeed while others fail. Moreover, frustrated users want to know why their implementation didn't live up to their expectations.

success using TMS are typically enthusiastic about the benefits they're capturing with their system and they categorically report having achieved a high level of successful automation. In many cases, transportation executives who lead successful TMS launches find themselves in high demand among companies looking to replicate this TMS success.

So what's behind this great disparity in results? How can prospective users of TMS solutions arrive at the best decision regarding which TMS program to engage? How can they derive the maximum benefit from their investment and realize the promise offered so readily by all TMS providers? This paper will examine what's needed to ensure the highest levels of automation and the maximum benefit from TMS by setting clear expectations and sharing proven best practices for implementation and ongoing maturation of a successful TMS program. Let's begin by first asking,

### WHY DO IMPLEMENTATIONS UNDERPERFORM IN THE EARLY STAGES?

Because:
- Expectations are improperly set at the inception
- Clarifying visibility takes time and attention
- Software does not correct bad/broken business processes
- Resistance to adoption among users must be addressed

Understanding each of these drivers of underperformance goes a long way toward helping a potential TMS customer avoid the typical impediments to success. But before we examine each of these elements in greater detail, it is important to note that

expectations should be carefully set with regard to the level of time and effort it will take to produce a program that not only streamlines transportation in the short-term, but also prepares it for longer-term success as the program matures.

## MANAGING EXPECTATIONS FROM DAY 1

TMS providers can sometimes be their own worst enemies when it comes to managing expectations. They do well at generating enthusiasm about the benefits of automation, but frequently neglect to adequately convey the extent to which these benefits accrue as the solution matures (as opposed to immediately). If a transportation manager or supply chain manager expects to simply "switch on the software" and achieve 90% automation (along with the cost and efficiency savings that come with it), they're sure to be discouraged when the reality sinks in that achieving this level of TMS success requires more than throwing a switch; and it will be the fault of the provider for failing to explain what to expect.

> **BEST PRACTICE 1**
>
> **TMS providers should deliver an analysis of the new client's current shipping lanes, volumes and routing and identify weaknesses in the existing routing guides and carrier base. If such analysis is not offered, the client would be well advised to request it.**

By month 6 of a new implementation, the transportation manager may be under pressure to show results to executives and inclined to regard the endeavor as a failure. This does not mean that TMS cannot deliver on the promise it presents. But there are some steps that must be taken between implementation and success and the best in class provider makes clear that…

## CLARIFYING VISIBILITY TAKES TIME AND ATTENTION

For a company making the transition from 100% manual processes or from a homegrown transportation system to a TMS, there is not likely to be sufficient visibility into historical data surrounding such critical metrics as rates, routes, tender acceptance/rejection figures and a whole host of others. Even though a TMS begins to capture these data sets immediately, the volume of data captured is not going to be significant enough

to analyze from a strategic perspective until at least six months worth has been collected. Delivering visibility into all facets of the transportation portion of the supply chain where none had existed before can be overwhelming. It's like walking out of the darkness into the brilliant light of midday. There is a period of time wherein the eyes must adjust to the blinding rush of new input. However, as this adjustment takes place, the outlines of the root causes of inefficiency begin to take form. Simply being able to see the full extent and composition of a transportation network brings the drivers of inefficiency into

> **BEST PRACTICE 2**
>
> **Collaborate with your core carriers early on, discuss the new metrics that will be in place and provide them examples of how you will be tracking their performance. Make sure you provide your carrier with the ability to view their scores. Your true carrier partners will seek out this information proactivally so they can address any issues before your next carrier review.**

focus. But, if this reality isn't addressed head on at inception; and if stakeholders are mistakenly expecting to be operating at optimum efficiency by month 6, the program is in jeopardy of being deemed "ineffective" and may begin to hemorrhage support of sponsors, users and leadership alike.

There are most definitely tactical examinations that can begin to be made almost immediately. By two scant months, there are enough data for program managers to begin to review in terms of month-over-month comparisons. This type of real-time, regular and ongoing review is highly encouraged as it establishes the practice of being attuned to the day-to-day activities of all users in the program. The foundations of visibility, as obvious as it may sound, are built upon not just having the ability to peer into each step of the transportation process; but rather, making the commitment to do so as part of the everyday management of the new system. At first, for some, this may seem counterintuitive. But as it becomes standard procedure, the benefit of this approach becomes clear. It is through this best practice of regular, daily, weekly and monthly review that users begin to notice that…

## SOFTWARE DOES NOT CORRECT BAD/ BROKEN BUSINESS PROCESSES

As noted above, during the early stages of an implementation, glaringly missing, deficient or downright broken processes are exposed for the first time as visibility clarifies. Unfortunately, many organizations operate under the misguided assumption that simply implementing business process automation software will solve all their problems. Sadly, many providers do little to disabuse folks of this notion. Providers who play fast and loose with the truth damage the credibility of those who take best practices seriously. In reality, even the best software cannot overcome the obstacles borne of broken business processes. The best TMS solution provider is the one that, having clarified visibility, helps not only to identify the broken processes, but to develop new processes – built upon accepted best practices – so that the software can operate to its full potential. Yet, the combination of the mandate for this "new system" and the focus it trains upon deficient processes almost always leads to…

## RESISTANCE TO ADOPTION AMONG USERS

Change is difficult. Especially when, as is often the case, a TMS solution is brought in to replace entrenched systems and processes that may be decades-old. There are myriad reasons why different stakeholders in every functional area impacted by a TMS implementation may be resistant to change. If the expectations outlined earlier are left unmanaged (as they so often are) this adds merit to those arguments against the implementation in the first place.

The antidote to resistance is knowledge. The TMS provider that acts as a true partner, focused on support and training, managing expectations, providing realistic goals and timelines, addressing fears concerns and reservations from all stakeholders is the provider with the greatest potential to succeed for the

> **BEST PRACTICE 3**
>
> Consider performing a "Change Readiness Assessment" before proceeding with your implementation. This will help identify resistance to change prior to beginning the project and help you identify "Change Agents" within your organization who are best situated to ensure that your project is a success.

client. This is why it is imperative to focus not only on typical concerns like functionality, integration and calculating ROI when engaging a provider; but to also perform due diligence regarding the provider's commitment to partnership and support over the entire program lifecycle. Programs that enjoy robust, dedicated and ongoing collaboration and support from a TMS partner enjoy significantly higher adoption rates than those that do not.

If, during the first six to nine months of a TMS program client users have embraced the change, achieved improvements in visibility and reformed compromised processes, readers may deem the solution a success. While it is true that achieving this early stage success is definitely something to celebrate, the milestone merely marks the beginning of the next stage in the maturation cycle. Read on to see why at this point, the work has only just begun.

## AS THE SOLUTION MATURES

The needs of an infant differ greatly from the needs of a toddler. The toddler's needs are dissimilar from the needs of an adolescent. A teenager has very different priorities than a 50 year-old. Could you imagine serving a grown man a scotch and soda in a sippy cup? Or asking a toddler to drive a car? As amusing and farcical as these images may seem, many TMS users engage in similarly ridiculous exercises with expectations that fail to consider the maturity of their TMS programs. The results are, as one might expect, as absurd as spoon feeding a grown woman from a tiny jar of strained peaches.

After the first six months of a TMS implementation are complete, if best practices have been observed, program users should be comfortable with their newfound ability to view tactical transportation data in real time. They should be comfortable with the practice of reviewing metrics week over week and month over month. Just as it was not possible for the 2 month old program to reveal broad trends early on, it now becomes implausible for a program to succeed without beginning to look more closely at the factors that either support or impede the achievement of goals sought through a TMS initiative.

Typically, six months into a TMS engagement once a solid foundation is laid, best practices dictate that Network Automation Studies be performed to capitalize on the collected data, review and revise new or re-engineered processes and identify additional areas for increased automation and additional savings within transportation. Network automation studies can be focused on a range of subjects and may be broad or narrowly focused depending on the individual challenges faced by a transportation department.  It is critical to the discussion to understand at the outset that in a successful TMS program, these kinds of studies must be performed on a regular basis.  This is because, as the program continues to mature, changes to underlying assumptions, fluctuations in business climate, changes to business strategy and a host of other factors exert a changing effect on the processes a TMS is responsible for managing.  Failing to continually recalibrate and rebalance the TMS can lead to diminishing returns.  This failure to adapt to maturation is often mistaken for failure of the TMS itself.  This is why it is so important for prospective transportation users of a TMS to enter into the endeavor with a clear set of expectations regarding how to address maturation.
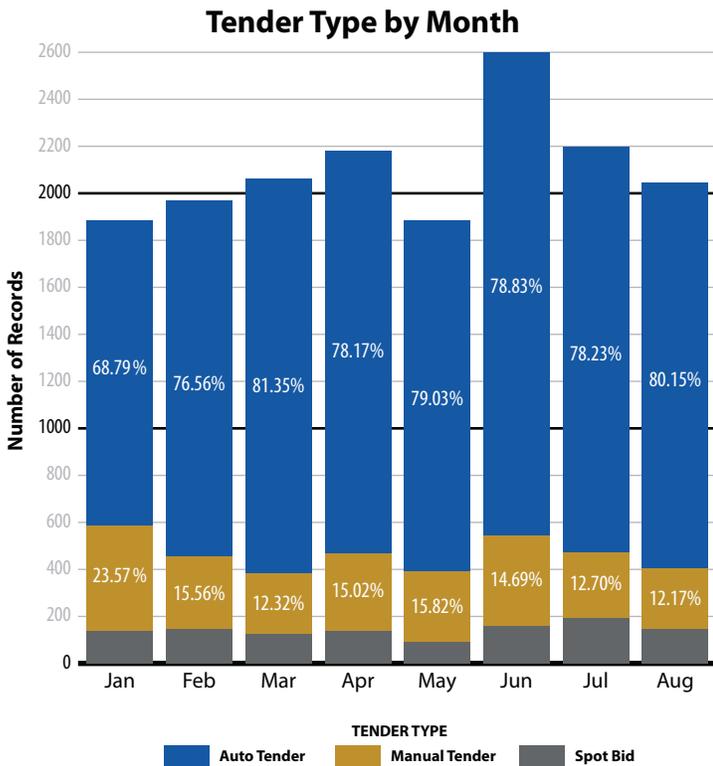
**What follows are representative samples of network automation study topics, the output of each analysis and illustration of how the analysis helps refine and improve TMS results over time.**

*Figure 1 (below) shows a side-by-side comparison of overall automation levels between "Shipper A", a newer program of less than one year and "Shipper B", a more mature program of more than 3 years.  Both analyses focus on levels of tendering automation.  Analysis of Shipper B's program shows they have achieved nearly 80% automation on 350,000 records whereas "Shipper A" has barely surpassed 60% automation; and on less than half the number of records.   This discrepancy is to be expected for several reasons.  Not least of which is the fact that a young program is just beginning to leverage a strategic examination of the factors holding automation levels back from increasing.  Whereas, the more mature program has already undertaken numerous analyses and applied what they uncovered to improving automation levels.*



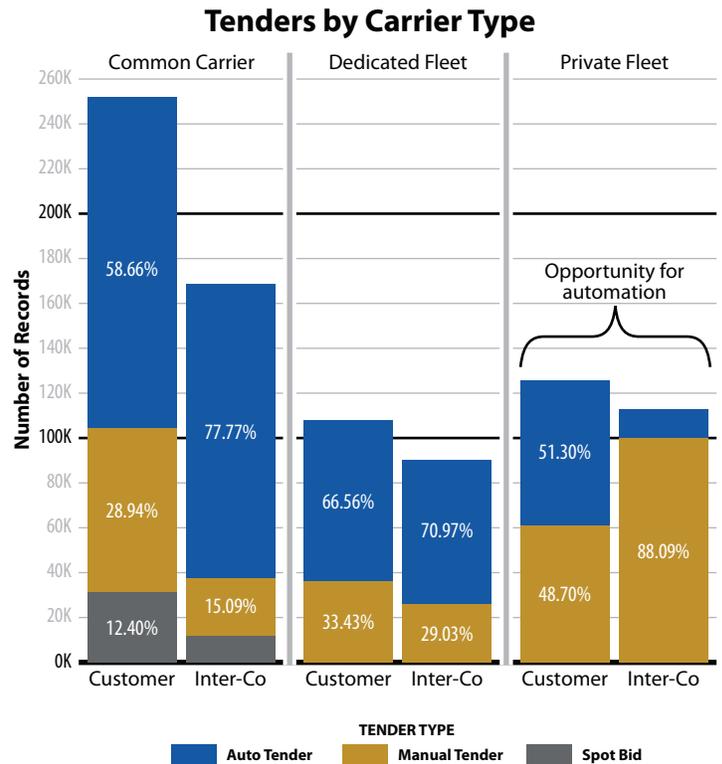**Side-by-side comparison**

*<continued>*
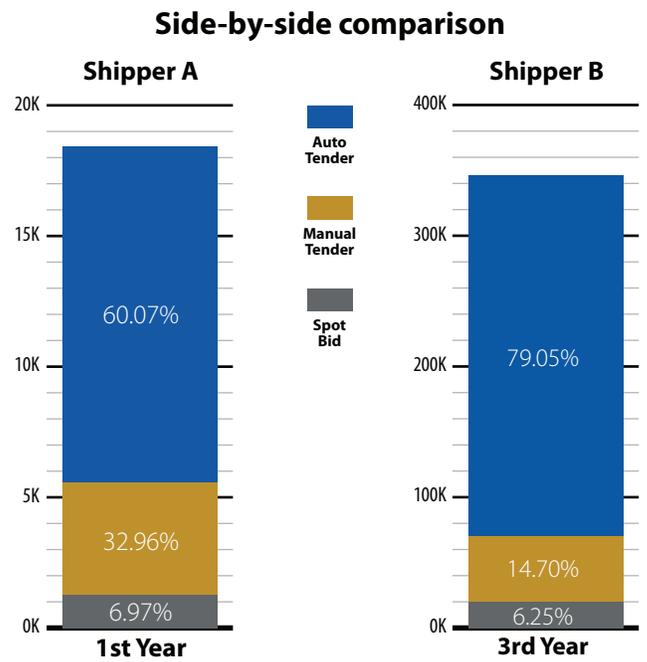
*Figure 2 (below) demonstrates the output produced by an analysis of total tenders by month. Examining tendering types and levels on a month-by-month basis serves several useful purposes. Looking at this data, a user has clear visibility into the effectiveness of their TMS efforts. If best practices as defined earlier have been observed, the transportation organization should expect to see a decreasing vector for manual tenders and an increasing vector for auto tenders.*

*In Figure 3 (below) analysis examines tender by carrier and movement type. Visibility in this area enables TMS users to determine if impediments to increased automation are correlated to the type of carrier being utilized and/or if the type of movement has any impact. The hypothetical example in Fig. 3 for example, clearly shows that the private fleet (and especially private fleet inter-company shipments) is largely responsible for lowering the automation average for this TMS program. Armed with this knowledge this customer can perform a more detailed examination of what processes involved in private fleet tendering may be contributing to the high level of manual intervention required. Common carrier, customer movements also show a increased volume of manual intervention in this analysis (a separate analysis looked at the impact of order lead time on tendering). Overall, when auto tendering fails to yield a pick up and requires manual tendering, this is indicative of failures in the routing guide.*

### Tender Type by Month



*The clarity and visibility delivered by this reporting enables transportation management to ask and answer critical questions such as, "Are we seeing an increase in automation month-over-month? Month-over-month analysis may provide insight into seasonal impacts on the tendering process. If seasonality is eliminated as a factor, then TMS users can proceed to other analyses designed to uncover the factors that contribute to achieving greater automation, such as tenders logged by carrier type.*

### Tenders by Carrier Type

## Routing guide failures by lane

*Figure 4 (below) looks at routing guide failures, examining failed auto-tender instances on a lane-by-lane basis. As the sample routing guide failure analysis shown in Fig ure 4 makes evident, the lane between this hypothetical shipper's Fayetteville warehouse and their Dover destination experiences a high volume of auto tenders left unaccepted and requiring dispatchers to make manual tender bids or even – in time sensitive cases – spot bids.  Seeing where failures occur by day of the week can reveal insights into the root causes of routing guide issues as well.*
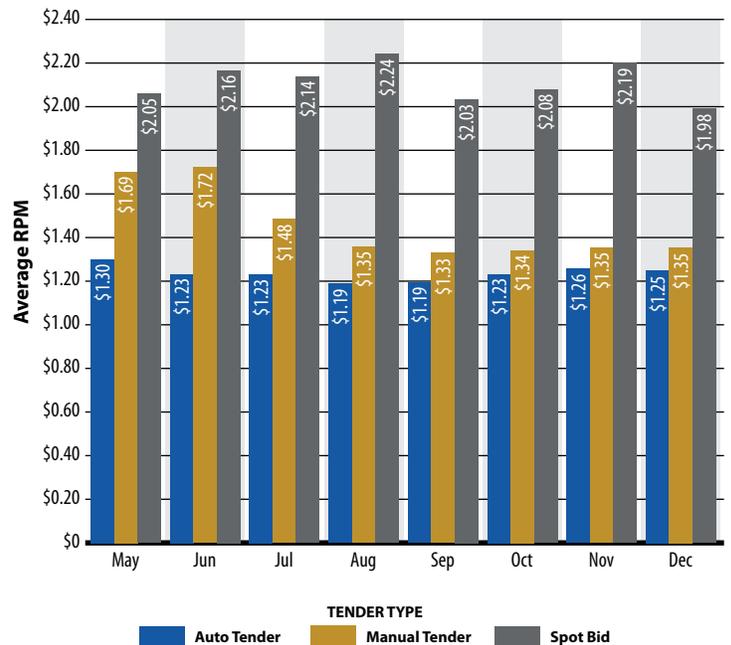
Although routing guides are established early in the implementation process, what may seem an effective routing strategy on paper may not stand up to practical application.  This is why it is so important to perform these analyses often.

Performing this analysis again in another 4-6 months allows the TMS user to gauge the effect of their response to learning of this issue with private fleet carriers.

At this juncture, the question may arise, "Why so much emphasis on gauging automation?"  The answer to that question can be best illustrated by performing an analysis of average rate per mile.

Immediately upon seeing the data in Figure 5 (below), it becomes abundantly clear the correlation between tender type and rate per mile.  In most cases, rate per mile and costs go down as more planning and automation is achieved.  Performing this analysis regularly helps TMS sponsors provide ongoing proof of concept to other stakeholders outside of transportation who may question the value of such a program.

| Origin | State | City | Manual Tenders | | | | | | | Spot Bids | | | |
|--------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Monday | Tuesday | Wednesday | Thursday |
| Columbus DC | NJ | Islin | | 52 | 58 | 94 | 86 | 59 | 44 | | | | |
| | | Perth Amboy | | | | 35 | 55 | 68 | 47 | | | | |
| | NY | Hicksville | | 39 | 49 | 38 | 52 | 60 | | | | | |
| | | New City | | | | | | | | | | | 36 |
| | | Yonkers | 44 | 60 | 53 | 80 | 59 | 43 | | | | | |
| | PA | Philadelphia | 37 | | 54 | | 39 | | | | | | |
| Columbus Plant | VA | Suffolk | | | | | 36 | | | | | | |
| Dallas DC | FL | Ocala | | 38 | | | | 40 | | | | | |
| Dallas Plant | VA | Danville | 39 | 54 | 52 | 78 | 69 | 68 | 59 | | | | |
| Fayetteville Warehouse | DE | Dover | 58 | 80 | 166 | 203 | 177 | 198 | 64 | | | | |
| Homell Warehouse | VA | Petersburg | | 44 | 70 | 60 | 44 | 40 | | | | | |
| Jackson Plant | DE | Dover | | | | | | 49 | | | | | |
| | GA | Columbus | | 45 | | | | | | | | | |
| Jonestown DC | MD | Columbia | 37 | | | | | | | | | | |
| | NJ | Perth Amboy | | 42 | 50 | 53 | 54 | 76 | 37 | | | | |
| | PA | Mechanicsburg | 37 | 41 | 57 | 62 | 49 | | | | | | |
| Madison DC | GA | Tiffon | | | | | 48 | 46 | | | | | |
| | TN | Lebanon | | | | | 40 | 39 | | | | | |
| SLC Warehouse | VA | Danville | | 47 | 42 | 64 | 62 | 44 | 47 | | | | |
| Stockton DC | DE | Dover | | | | | 35 | | | | | | |
| | PA | Penn Hills | | | | | | | | | | 40 | |
| | VA | Blacksburg | | | | 999 | | | | | | | |
| | | Petersburg | | 45 | 91 | 98 | 90 | | | | | | |
| Tacoma Plant | VA | Danville | | | | 49 | | 55 | 42 | | | | |

**Average RPM by month (TENDER TYPE)**

| Month | Auto Tender | Manual Tender | Spot Bid |
|-------|-------------|---------------|----------|
| May | $1.30 | $1.69 | $2.05 |
| Jun | $1.23 | $1.72 | $2.16 |
| Jul | $1.23 | $1.48 | $2.14 |
| Aug | $1.19 | $1.35 | $2.24 |
| Sep | $1.19 | $1.33 | $2.03 |
| Oct | $1.23 | $1.34 | $2.08 |
| Nov | $1.26 | $1.35 | $2.19 |
| Dec | $1.25 | $1.35 | $1.98 |

## CONCLUSIONS

There are numerous other analyses that can and should be performed in pursuit of a successful TMS program. A good TMS partner should be present over the lifecycle of the engagement and should have the depth of transportation experience needed to provide guidance and expertise in performing such analyses. Further, these analyses should be performed at regular intervals so as to account for the evolving parameters and conditions every business operates within.

If organizations observe best practices in the early portions of a TMS implementation – and if they continue to maintain a diligent and attentive focus on continuous improvement via regular analysis of the data they collect – there is no reason why their TMS programs should ever underperform.

In large measure, the ability to observe the best practices outlined in this paper is predicated on having a committed, proven effective TMS provider-partner. Just because TMS is a software doesn't mean that providers of such technology ought to simply sell it, install it and leave. Organizations considering investing in a TMS should inquire of provider candidates, whether their TMS is simply a package of software or if it comes with a partnership to help shepherd the program from infancy through maturity.

UltraShipTMS does not expect the client to make the most of their TMS investment in a vacuum. Knowing how to parse the data it collects and, more importantly, what questions to ask of it, is something that a TMS provider should maintain as part of its core competency. Because many providers are long on IT expertise, but short on transportation expertise, they fail to be able to deliver exceptional support as programs mature and low hanging fruit has all been gathered.

UltraShipTMS is committed to remaining closely involved with clients for the entirety of the engagement because nothing succeeds like success; and the client's success defines the provider's.

*UltraShip*TMS

UltraShipTMS is a respected provider of supply chain management technologies, services and consultation, helping Fortune 1000 organizations optimize and transform their transportation networks from opaque and rigid cost centers to strategic and responsive value drivers. UltraShipTMS provides a single-source solution for optimization, transportation and settlement for in- and out-bound shipping across all modes of transport. Delivered in the flexible, affordable Software-as-a-Service (SaaS) model, the UltraShipTMS suite offers proven tools for reengineering supply chain processes while unlocking complete transportation network visibility, improved collaboration and accountability. Built and supported by the same team of transportation industry veterans and software developers, UltraShipTMS is an emerging leader in the supply chain management industry.

**Visit us online: www.UltraShipTMS.com     Call us toll-free: 1-800-731-7512**