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Letter from the President :

Shopping small...

Lately in the State of Maryland there has been a big push to get consumers to come out and support small business and shop locally. You must wonder why the state is publicly promoting this when in the past it was always on the back of the business to do their own marketing and advertising.

The answer is tax revenue. Retail is in trouble. It started with the advent of the internet and when e-commerce hit the scene you could see the beginning of the end. Amazon now owns 47% of the e-commerce market selling everything from food to cars. Do you still have the small home town hardware store? I'd doubt it.

What the government ceases to realize is that the traditional retail model is coming to an end. They are scared to death of losing not only the sales tax revenue but the W-2 revenue that comes from employment. They have no plan and are just hoping that the consumer has it in their heart to spend more money locally. Traditionally e-commerce caters to the same product while costs are less and delivery is in a matter of days. Would you rather be spending your valuable time navigating malls and stores when they can simply get it through an e-commerce site in 5 minutes *with free delivery*?

Retail isn't laying down without a fight. They are smart enough to realize the rising tide of virtual shopping is here. Many are opening their own e-commerce sites.

Smart phone technology can track you in the store, analyze personal buying habits on back end databases and send you electronic coupons as you shop in that section of the store.

RFID allows retailers to get real time visibility of merchandise and how it moves through the store. "Big data" allows for analysis that retail has only dreamed about in the past.

The paradigm of retail has shifted and smart retailers better get on board or they will be shopping for new jobs, most likely, virtually.

TSG is aware of the trend and is making inroads to positioning products to take advantage of this as well as the Internet of things (IOT) Welcome to the brave new virtual world.

Best Regards

COO/President



Sani-Track System News



ECRI Institute evaluating and issuing White Paper on the Sani-Track System...

For nearly 50 years, ECRI Institute, a nonprofit organization, has been dedicated to bringing the discipline of applied scientific research to discover which medical procedures, devices, drugs, and processes are best, all to enable you to improve patient care. We firmly believe that seeking and finding the best ways to improve patient care require "The Discipline of Science" and "The Integrity of Independence."

ECRI has more than 5,000 members and clients list includes hospitals, health systems, public and private payers, U.S. federal and state government agencies, health clinics, patients, policymakers, ministries of health, associations, and accrediting agencies worldwide.

ECRI will be submitting a white paper evaluating Sani-track. Upon completion of the testing it will be circulated throughout the medical industry and distributed to their 5,000 strong membership.





A glimpse into the future...



What is a Cannabis Supply Chain?

A supply chain is the network of all the individuals, organizations, resources, activities and technology involved in the creation and sale of a product, from the delivery of source materials from the supplier to the manufacturer, through to its eventual delivery to the end user. The new generation of Cannabis entrepreneurs will be managing the cannabis supply chain, and, regardless on where you set your flag along the chain, you will be responsible for;

- (1) Receiving a product
- (2) Converting that product into something else
- (3) Ensuring the quality of said product
- (4) Preparing and distributing your product.

Depending on the nature of your canna-business, you will be overseeing elements of:

- Product design
- Supply
- Production
- Manufacture
- Distribution
- Retail Sale
- End User Support

So, how do you maintain a healthy and efficient supply chain?

You start by thinking like a client. Put yourself in their shoes – when they walk into your place of business, what do they want? Reliability, consistency, and quality of your service or product. If a returning customer found that his or her favorite strain was suddenly unavailable, or that it had suddenly deteriorated in quality and lost several decibels of its former loudness, then there's a good chance you won't be seeing that customer again. As such, these concepts should constantly be in the back of your mind when evaluating each link in you supply chain management.

The supply chain starts with the growers. Growers want what all farmers want: certainty of price and distribution. But there is a lot of diversity when it comes to the size and sophistication of suppliers in this industry. Some growers have a single tent in an apartment or a room in a home. Others use a green house plot or an entire field. This diversity can create inconsistencies for all members of the supply chain.

The next step in the supply chain is processing of the marijuana, where the buds are harvested from the plants. This could take place at the grower's shop, or it could be a separate link in the supply chain, depending on the grower's resources and business model. This processing would involve different pre-distribution procedures, depending on whether they were intended for wholesale or retail buyers, in other words, whether it is being sent to an end user, or to additional links on the supply chain.

At this point, the cannabis has been prepared for preliminary distribution. Depending on exact where on the supply chain you want to focus on, product design and marketing may play a role. So the question becomes how to develop strategies to ensure efficiency and stability of your supply chain organization. Each entry point to the supply chain must be flexible, and able to cater to different sizes and qualities. As each supplier is aligned with suppliers of like size and quality, a marketplace is formed. Marketplaces are then organized by size, quality and variety, which leads to more specialized and often more interdependent markets.

There is strength in numbers. The canna-business community can and absolutely should organize and learn from one another to develop strategies for each link in the cannabis supply chain. Are you a smaller, more specialized grower? You can work with similarly sized businesses on coordinating timing, strains and vendor tactics. Conversely larger suppliers can band together to enter the commodities market, which can open up even more opportunities for scaling and expansion. This organization will be especially valuable when addressing the concerns of those that will inevitably oppose the sale of a formerly prohibited commodity

Future Supply Chain Opportunities

The marijuana industry and its supply chains are still in their infancy. There are countless ways for it to expand and evolve in the coming years. Production will become more sophisticated and tailored toward either a volume or high-quality, artisanal supply chain. Extracts, oils, butters, and edibles, and drinkables will proliferate in any number of directions. As businesses grow, they will build their reputation and brand within their community.

As the legal cannabis industry grows and develops, so to will the industry's supply chains. There are dozens of potential links to this chain, from budtenders, to accountants, to growers, attorneys, social media consultants, couriers, security, to quality control. Much of the key is getting in early - the cannabis industry has unique opportunities to build an entire *industry* from the ground up, and that gives the first ones out of the gate a lot of leeway to shape the future of that industry.



Strategic Partners Update:



Oracle Hospitality Division

The modern cruise ship is a small city on the seas, with populations as large as 5,000 seen on large ships. The growth of the cruise ship industry has continued in the twenty-first century, and it was estimated that nearly 41.3 million passengers traveled on cruise ships in 2016, with the majority of these sailing from North America.

The presence of large numbers of individuals in close proximity to each other facilitates transmission of infectious diseases, often through person-to-person spread enabled by poor hand hygiene by ships' staff and/or molds and spores endemic to ship travel.

An infectious agent introduced into the environment of a cruise ship has the potential to be distributed widely across the ship and to cause significant morbidity.

The median cruise ship passenger is over 45 years old and often has chronic medical problems, so it is important that, to have a safe cruise ship experience, any potential for the introduction of an infecting agent as well as its transmission be minimized.

In conjunction with Oracle Hospitality Division, TSG has 2 products being presented to a number of cruise lines. TSG's Sani-Track and Stera-Mist products are being championed by Oracle, as front line solutions in the fight to eliminate cross contamination on cruise ships.

SteraMist™ Adopted By CVS Compounding Pharmacies:

Sterility protocols are extremely important for protecting the integrity of the formulary being created in the compounding lab. Quality control standards and liability if those standards are not upheld are first and foremost in the minds of pharmacy directors.

TSG, working with CVS's top management, has developed a sterility protocol that should keep all contaminants and particulate out of the compounding area. A key component to this solution is a product called SteraMist™, manufactured by TOMI. Originally developed by DARPA to neutralize mustard gas, the formulation was bought by TOMI and developed into a misting system that will create an environment with a 6 log reduction in contaminants. This is being used by CVS, not only to create a baseline for sterility in their facilities moving forward, but the plan is to sterilize all product entering the pharmacy.

This along with TSG's SaniTrack system and monitoring devices we have placed in the facility, makes for an environment that will maintain sterility standards throughout the day. Presently, TSG is working with other accounts that house clean rooms that are looking for the same results



Customer Update:

Ecolab chooses TSG for chemical monitoring

Ecolab, a nationwide chemical manufacturer headquartered in St. Paul MN had a problem tracking and validating chemical delivery. If a truckload of a certain chemical is offloaded into the wrong tank there can be dire consequences.

TSG in conjunction with Sato Global Solutions created a program which would allow the truckdriver to log onto the remote server where the software is located. This would be done with a Zebra MC55 portable terminal. Once certain information is presented it is validated in the Sequel database and a key combination is sent to unlock the chemical nozzle on the truck. This will prevent any wrong offloads from occurring,

TSG also maintains and supports their portable terminal pool. To date, Ecolab is happy with system performance and plan to give us other opportunities in the account. Tom Baldvins, our field service technician was instrumental in the migration of this platform and will be maintaining this along with Kelly Fleenor moving forward.

One potential opportunity is food safety and hand hygiene monitoring using Sani-Track. They have one division completely dedicated to liquids used for hand hygiene in healthcare and labs. We plan to approach them to see if Sani-track may be a possible fit in their product offering.



TSG upgrades supply chain operations for Hirsh Industries...

Hirsh Industries LLC manufactures and supplies filing, storage, and organization products for personal and commercial use. Current product categories include commercial grade vertical, lateral, and pedestal file cabinets, small office/home office file cabinets, free standing storage shelving units, filing accessories, and other related items.

Although one of the leaders in this product segment they were still behind the times in many different aspects of tracking, inventory control and vendor compliance. TSG to the rescue. Firstly we installed Cognex vision systems on their conveyor lines. Very difficult application scanning a variety of barcodes with different mil specs in different positions on different size boxes. Presently we are getting an average of 99% readability on those lines where there was no visibility at all in the past.

Picking and put away using forklifts was another automation step. We installed wireless terminals with long range barcode scanners for this operation. Barcode placards mounted in the ceiling can be scanned from 70 feet. They now have visibility of all inventory.

Along with putting together a labeling program they also would like us to look at their Mexicali Mexico facility to duplicate the process. This should be accomplished in the spring. Their corporate headquarters are located in West Des Moines, Iowa with state of the art manufacturing facilities in Dover, Delaware and Mexicali, Mexico.





THE of RFID/AIDC



Retail applications for RFID are set to lead an explosion in the overall RFID market size, with general consumer goods adoption also rising sharply, as growth in general manufacturing will remain modest. That according to a new report from the analysts at IDTechEx, who expect the total global RFID market, including all tags (passive and active), readers, software and services, to be about \$9.2 billion in 2014, up sharply from about \$7 billion in 2012.

But IDTechEx expects the market to accelerate even further, nearly doubling by 2018 to over \$18 billion, and then rising to some \$30.2 billion in 2024. If that were to occur that would be a cumulative average growth rate (CAGR) of about 12.6% from 2014 on, very solid indeed.

Whether we'll see the RFID market doubling by 2018, and then coming close to doubling again in five more years obviously will remain to be seen, but perhaps more interesting than the total is what sectors will be driving the growth. This year the global retail RFID market is estimated at \$400 million, or about 5% of the overall total. The current market is dominated by applications in the transport sector (mostly for RFID-tagged tickets) and "financial" applications such as RFID enabled credit cards and key fobs.

But by 2018, that picture will have changed dramatically with retail RFID spending exploding, rising to \$8.1 billion by itself, to 27% of the global total, and will become the largest single segment by then.

TSG Employee Profile

Kelly Fleenor moved to Columbia, Maryland from Louisville, Kentucky in summer 2016. She joined Technologies Solutions Group this past June as 1 part Office Manager, 1 part Marketing, 2 parts geek, and 3 parts everything else.

Her educational background includes a BA in Marketing Communications and BS in Computer Science from Indiana University and a MS in Organizational Development and Leadership from University of Louisville.

Kelly will be playing an integral part in TSG's growth moving forward. In her short tenure she has already done key software installations for us as well as troubleshooting calls with existing clients. Not to many people can multitask as well as Kelly which makes her invaluable in the small company setting.

In her free time, Kelly loves to spend time with her two children, Harry and Ally. She also advocates on behalf of dyslexia, enjoys challenging physical events – recently completing GoRuck Tough 9/11 and Ragnar Relay DC, and entertaining family and friends.



Kelli Fleenor



TSG Investor Information

Technologies Solutions Group (TSG) is a privately held company with a targeted, diversified, strategic portfolio revolving around supply chain/work-flow automation products, hygiene protocol management monitoring, consulting services and on-site feasibility studies for all of the aforementioned products and services.

We service broad base of industries including; healthcare, pharmaceutical, pharmaceutical compounding, commercial warehousing, food processing and Marijuana growing campus co-ops, both retail and medical.

Our clients include, CVS, Under Armor, DAP, Med-Star, National Security Agency, Department of Labor, Perdue, Serta, Becton Dickinson, Holt Logistics, Rite Aid, General Dynamics, John Hopkins and other Fortune 500 corporations. We have structured TSG's offerings and filing documents to comply with SEC Regulation D requirements to include; Operating Agreements, Articles of Organization and all the necessary Subscription documents.

Should you be interested in TSG as an investment opportunity, please contact the following principles to receive our investment package and/or discuss the potential opportunity in detail by phone.

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