

## Revolutionary Online IoT Access Road Mat Tracking Solution with Embedded RFID Tags and GPS Providing Location, Project Information and Analytics



**Steve Fisher**  
CEO

**CEOCFO: Mr. Fisher, what is the focus at GEM Services today?**

**Mr. Fisher:** The focus here is to revolutionize the matting industry, providing our SmartMat service, which is an RFID and GPS enabled tracking service to manage mat inventories and all mat installation projects.

**CEOCFO: What is access matting?**

**Mr. Fisher:** Access matting are eight foot by fourteen foot, six inch thick, wooden mats that weigh about a ton a piece. They are installed in remote locations for access roads and work platforms for the energy industry. There are currently over four million of them scattered across North America.

**CEOCFO: What is wrong with the current industry approach?**

**Mr. Fisher:** The challenge currently is it is a manual process, involving actually staff in the field, manually counting that and recording that information. That is a very inaccurate way and also very inefficient time wise.

**CEOCFO: Have people looked at solutions previously or is this a brand new concept?**

**Mr. Fisher:** Our application of technologies is a new concept. People have looked into doing this with bar code and I.D numbers but it always came back to a manual process of gathering that data, whereas we have imbedded the entire system into the heavy equipment that move all of the mat. It is a now a new concept but it is a very new way of doing it. It is completely imbedded and does not slow down operations or require any extra steps.

**CEOCFO: What is the technology behind SmartMat?**

**Mr. Fisher:** It is an RFID and GPS based system that is imbedded into to the actual heavy equipment. Then the data captured is available on the cloud on a platform for our clients to log into and using mapping functionality and project reports to view every detail of a matting installation project.

**CEOCFO: What are the advantages of your system?**

**Mr. Fisher:** The true advantage I think is transparency into field operations for office staff. That is the big advantage. In previous systems, office managers would have to rely on their field staff to record project details and then submit those project details, whereas now, everything is captured automatically and then is available on our SmartMat platform. An office manager anywhere in the world can log on and physically see the actual project taking place in the field in near real time.

**CEOCFO: Has the industry been looking for a better method?**

**Mr. Fisher:** We entered the matting industry because we saw there was a big problem in it and that was our motivation to solve that problem for that industry. It accounts to about a half a billion dollars a year in extra costs.

**CEOCFO: How do you imbed the technology into the mat?**

**Mr. Fisher:** Currently, we are getting add on layers but are in discussion with manufacturers to do it right at the point of manufacturing. It is proprietary RFID tags that we have developed in conjunction with SAIT, which is a college up here, the Southern Alberta Institute of Technology. They have a very advanced RFID lab there. We have developed specific proprietary tags to accomplish our goals.

**CEOCFO: *What is involved in the manufacturing?***

**Mr. Fisher:** From the OEM standpoint, it will not be a costly process but we will have to insure that we have quality controls in place to guarantee that all mats are tagged correctly. There is a process of tagging that we have developed. It is not as simple as just folding one on to the side. They will have to use our proprietary tagging installation criteria and we will have to insure that there are quality control in place to make sure all tags are functioning and reading appropriately.

**CEOCFO: *Would a company typically try a few and see how it works? Who actually does the installation?***

**Mr. Fisher:** It is our team that would come out and install tags and mats for our clients. We feel that the best way for them to test run it is because we have our own fleet of tagged mats that they can see the process and see the value in it just by going through demos with us. If they choose to have us come out and mat, using our SmartMat on a project, once they commit, they would probably want to do a larger scale of tag installation. You have to buy hardware for the heavy equipment to the entire system to work. If they want to demo it, they can demo using our mats and see how it works, and if they want to make a commitment to retrofitting their whole inventory, we would come in and retrofit for them and provide the equipment hardware that they would need for the system. They would just join our status program, log on and be able to view every mat every day of its life.

**CEOCFO: *How have you made viewing what is going on simple and intuitive?***

**Mr. Fisher:** The key in the field for us was to not disturb regular operations. We have designed our entire system to not affect how you normally go about your course of business. For the management who want to log on to our platform, it is a very user friendly, simplified platform, providing mostly functionality and then project reports available. We are a matting company and a matting owner and everything we have designed was to optimize our own business and, which then would provide those exact same benefits to any client who would own mats. We have designed it for ourselves and are now taking it out to the rest of the industry.

**“IoT applications in the industrial space is the way of the future and it is going to drive trillions of dollars worth of change in our industry.” - Steve Fisher**

**CEOCFO: *How did you know when it was time to do that?***

**Mr. Fisher:** It was this year and we have been using it for a year internally to test it all out to insure it is reliable and now is the time to launch it. We have been building it for four years and using it for one year.

**CEOCFO: *Would you explain the time and dollars and why this makes such a difference?***

**Mr. Fisher:** We have proven it ourselves but there have also been a few business cases with major Canadian companies, some of the biggest companies in Canada, just to identify all of the challenges with matting. Then we have built the solution to solve all of those challenges. Dollar wise, it is about half a billion dollars a year in North America in waste. It goes much beyond the matting and I think that is also the case when these types of applications are developed. We have built it thinking we were just tracking assets and now we have realized it is more important to track the actual construction project to monitor all of the heavy equipment and trucking, and to be able to avoid bottlenecks and work stoppages by understanding the supply chain management side. We thought we were just keeping track of our inventory and now we are more focused on keeping track of the entire project.

**CEOCFO: *Will there be more offerings to come for your customers?***

**Mr. Fisher:** Absolutely! We will be going in two ways. We are sitting in the middle of it right now. One is expanding the aspect classes so it is not just matting; it is expanding into other aspects that are moved by heavy equipment. On the other side, on the cloud and platform side, we see integrating what we have created in with GE's Predix platform. We are currently working on that with them right now so that the Predix platform concept is that the entire project, and every aspect can be managed to one platform, with our SmartMat being one of the additions to that. We have been going into two directions. One is expanding into other aspect classes and the other is expanding into a more comprehensive platform like GE's Predix.

**CEOCFO: *Is the industry aware of what you have created or are you still in the educational phase?***

**Mr. Fisher:** We are absolutely still in the educational space. These types of applications are very new to our industry and to the energy industry on a whole. We are absolutely in the educational space still. Five years ago, none of this could be done, but now it can. Educators are the main focus for any of our sales team

**CEOCFO: *How do you decide who to approach and how to approach?***

**Mr. Fisher:** We do a lot of speaking at events and industry events especially around technology. We are often on stage describing what we do and working with channel partners being with matting manufacturers is another way that we are

currently reaching out. Because we have been in this industry for a while, we have many existing contacts, so direct clients and relationships we have built up over the last five years, so we are speaking directing to clients as well.

**CEOFCO: *Are people excited when they hear about your product? Do they understand easily?***

**Mr. Fisher:** I think it depends on where they sit in the corporate ladder. The higher up, white-collar groups are very excited about it because they understand the challenges out there and they realize they need to absolutely drive for efficiencies, especially in today's pricing environment of the oil and gas industry where it is going to become crucial to be a very low cost producer. Those groups are very excited about it and yet we are seeing some resistance to be honest in the field level groups because their concern is big brother watching at this point and that we are providing complete transparency into all of the actions in the field. There are some field level people that are concerned with this type of change and it will reduce the staff required in the field. They are also feeling that this is going to come at a cost to jobs for them but what we see is the improvements that this will lead into all of the energy industry will drive more and more projects because they will be more cost effective, which will help the entire industry grow as a whole. Those are two viewpoints on it that we are feeling, a different from the field to the office.

**CEOFCO: *Why is GEM Services noteworthy?***

**Mr. Fisher:** It is a crucial step in project management. Automated and imbedded systems that will accurately track everything that happens in the field is a crucial step for it. The IoT that is becoming more commonplace is absolutely part of the future and that clients and companies who are getting on board with it now are the ones who will truly benefit. The clients and companies who wait and see will be left in the dust. They will be behind the times and will be inefficient in comparison. The way the technology adoption curve works is it is very steep curve and the companies that get on early benefit and the companies that get on late do not stick around for long. IoT applications in the industrial space is the way of the future and it is going to drive trillions of dollars worth of change in our industry. It is very clear when you look at companies like GE, Cisco and major groups that are throwing everything they have at this, it is a macro change in the way projects are handled and clients need to come on board. I am not going to say that we are the important part of it be we are one to the many groups there developing real applications to solve the problems in the field. If you are in that space where you use matting, you will either jump on now or you will wish you have because your competition is certainly looking at it right now.

Interview conducted by: Lynn Fosse, Senior Editor, CEOFCO Magazine

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