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IoT

Failure to Launch

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Why IoT Projects Fail to Get Started

The May 2019 The RELIABILITY Conference™ saw a significant increase in the number of sessions and vendors that included the Internet of Things (IoT), Industry 4.0, or digitization topics/themes. The IoT related content has been on a steady rise for the past couple of years, with no sign of slowing down as evidenced by the agendas for the MaximoWorld 2019 and IMC-2019 conferences in August and December 2019, respectively. Of course, if you are in the business of maintenance reliability, this subject prevalence is nothing new to you.

What is surprising came from a discussion among industry professionals at The RELIABILITY Conference. They observed that despite all the hype about IoT, there is not a commensurate amount of hype regarding companies that are actually doing something. That's not to say there aren't some great examples of companies using IoT to improve operations and reliability. But those who were part of the discussion couldn't help but ask: "Why are there not more?" Vendors and companies talk about the "vision" of IoT within the industry, but a lot less of them seem to be putting that vision into practice.

It's sort of like that 2006 movie, *Failure to Launch*. It centers on Matthew McConaughey, whose 35-year-old character, Tripp, still lives at home with his parents, played by Terry Bradshaw and Kathy Bates. Despite their best efforts, they cannot get Tripp to move out, who, by the way, believes his parents love having him there. Tripp knows he probably should leave, but it's pretty good where he is. It is a goofy rom-com that is fun to watch and relatable if you have a recent graduate who has come back home to live.

So, how is this movie relevant to an organization's IoT strategy? Over the past couple of years, a great number of companies have been exploring the value that IoT solutions can provide. There have been numerous conferences and user groups where this value is presented. Yet, despite knowing the benefits that it can bring them, organizations stay the course. They are suffering from a *failure to launch* in one of two areas:

> "Vendors and companies talk about the "vision" of IoT within the industry, but a lot less of them seem to be putting that vision into practice"

Failure to *start* a project or pilot
Or
Failure to *expand* beyond a pilot.

Back to the discussion at The RELIABILITY Conference, the participants came to some conclusions about each of these two areas.

FAILURE TO START A PROJECT OR PILOT

This can be traced back to one of five broad reasons:

1. **IT Arrogance** – That may be too strong of a word, but it does seem to creep into nearly the start of every IoT conversation. Typically, it manifests itself in one of two comments. The first one is: "We are already doing IoT." In many ways, this is true, especially in a regulated environment, such as a utility or oil&gas company. They have been monitoring assets forever with huge control rooms and the like and it is effective, meaning they do catch the big failures. But, what do they do with the rest of the data? Or, how do they manage the thousands of other unmonitored assets? The second comment is: "We have all the data we need." This also may be true as they have created data lakes and have databases associated with all their pop-up applications. But again, what are they doing with it and how hard is it to use all that data?
2. **An IoT Project Is Too Complicated and Would Take Too Long** – For sure, a perception exists that is associated with past integrations into Supervisory Control and Data Acquisition (SCADA) systems or Manufacturing Execution Systems (MES). However, this reason is no longer true with the new set of technologies available. Certain IoT solutions can be up and running in a matter of weeks, not months.
3. **No Dedicated Budget** – A common reason is: "We did not plan for this in our maintenance, equipment, reliability budget, so I have no money." It's an interesting reason, given that they will spend money elsewhere to shore up gaps they may have, say a labor shortage or an equipment replacement. Yet, the right project can eliminate a lot of the problem areas that are costing much more than what an IoT project would cost.
4. **Only Operations/Maintenance Will Benefit** – This is an age-old problem of maintenance and reliability being seen only as a cost center.
5. **Focus on Immediate Concerns** – Maintenance will always be under the gun. The mind-set at companies will always be if the product gets out the door and the machines keep running, that is good enough, with little regard to the impact on culture or employees. Or, there is the thinking that organizations have enough on their plate keeping a plant running without starting a new project.

FAILURE TO EXPAND BEYOND A PILOT

Let's say a company decides to move to pilot stage. What is keeping it from moving into production? There are several reasons:

- **Technology Looking for a Problem; IT Led vs. Business Led** – This is a real issue. Often, the pilot will start with some edict that states: "We need to do IoT." This often will fall on IT – they have innovative people and maybe, with the help of a creative vendor, create a can't miss solution. The IT folks go to the operations people and let them know they are implementing this IoT solution that will be great. Turns out no one ever talks to the line of business to see if this solves a problem worth solving.

A recent survey conducted at the Internet of Things World Forum seems to support this theory. It reveals that 35 percent of IT staff view an IoT project a success, while only 15 percent of business decisions makers shared the same view. If the business decision makers do not think a project is a success, they won't fund it or dedicate resources to rolling it out.

- **No Plan for Rollout** – There seems to be a mind-set of applying IoT project to a singular issue, but no plans to take it further if it is successful. A small approach is fine, but if you choose a solution that is too limited, then the project will not go any further.
- **Little Focus on the Value** – A project that showcases technology, but has no real return, has no future. There has to be some value in it for the business, be it cost savings, labor optimization or some other concrete benefit.

Knowing the challenges and roadblocks can help you kick-start an IoT project and/or move it past pilot into a full production rollout and expansion to other areas. Here are six strategies to help ensure success:

1. *Get Executive Support* – Get the highest level person in your organization who is willing to listen and has ties to upper management. Buy-in to your vision is critical in getting started, both from a personnel resource and dollar commitment.
2. *Start Simply*, *Execute Relentlessly* – Choose a use case that is simple, has value and can be a quick win. Then, focus 100 percent of your attention on doing that well. Success with a simple project will build management buy-in, whereas a grandiose vision that is difficult and problematic will kill any momentum, regardless of the potential value.
3. *Focus on the Outcome vs. Technology* – Know what problem you are trying to solve. What is the use case? What does it mean to the organization to solve the problem? The technology will be there – that is the more straightforward part of a project. Solving a known problem will get people on board because, most likely, it is a problem that people have been pointing out for a long time. The aforementioned survey also revealed that 54 percent of successful IoT projects cite strong collaboration between IT and business.
4. *Focus on the People* – Yes, IoT is a terrific solution to many things. But in the end, you still need people to make it work, whether it is defining the right use case, analyzing the data, or acting on the data. Focus on making the people it touches better.
5. *Failure Is Okay* – The right solution allows you to test multiple use cases quickly. One may not work, which is fine. Set up a plan so you can simply and easily attempt the next use case.
6. *Don't Go It Alone* – IoT solutions can be broad and encompass large swaths of technology. Most likely, your organization does not have all the skill sets you need to be successful. Leverage partners that can close those gaps to ensure your best chance of success.

Back to the movie, Tripp's parents call in Paula, an expert in the field, to assist in getting him to move out. Ultimately, Paula, played by Sarah Jessica Parker, working with Tripp's parents, apply the aforementioned six strategies to move to a successful conclusion where the parents have the house all to themselves. Although your IoT projects may not always have such tidy endings, by understanding the challenges you face and employing the right tactics, you can avoid a *failure to launch*.

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