



IOT INSIGHTS REPORT:

Endpoint Lifecycle Management & Managed Services

With **Bill Kramer**, KORE EVP IoT Solutions

Bill Kramer serves as the Executive Vice President, IoT Solutions for KORE where he is responsible for developing, delivering, and supporting end-to-end IoT Solutions for enterprise customers. Enabling KORE to act as a trusted advisor to organizations navigating complex technology choices, Bill also leads KORE's professional services practice that includes consulting services and IoT endpoint lifecycle management services, among other management services that are designed to simplify and accelerate IoT deployments. Bill brings more than 30 years of experience in the data communications technology sector spanning wireline, mobility, IoT, MMS, OEMs, and cloud technologies companies.

Q1: We hear that IoT solution adoption rates are continuing to explode, but what are the actual success rates for projects?

BILL: There's actually a recent industry survey out there from Cisco where they say 60% of all IoT technology deployments never make it out of the proof of concept phase. Tragically, only 1/3 of all projects that get out of the proof of concept phase are considered a success. Furthermore, approximately 13% of all IoT projects started are completed and considered a success. That is a pretty dismal statistic.

Q2: What are the main reasons IoT projects succeed or don't succeed?

BILL: In general, companies lack the expertise or the resources to fully understand IoT solutions, how to deploy them, or how to manage the multiple vendor relationships required to deliver all the components involved in their solution. Additionally, they sometimes greatly underestimate the complexity of the issues involved in the deployment and operations of these solutions. These challenges often result in delayed time-to-market, a delayed realization of their ROI, or a stall or failure of the solution deployment.

Said another way, organizations don't know what they don't know, which means they are unsure where to start or how to proceed – especially those who are new to IoT. That's why you see such a high failure rate in companies trying to implement IoT technologies.

Q3: What's the most common mistake that you've seen in IoT deployments?

BILL: If you jump right into technology choices and you make your selections, but you haven't thought through the deployment, operational, and sustainment implications of those choices, you can end up with a solution design that's not operationally scalable or sustainable.

Organizations that lead with technology choices before they've done a complete analysis of their business process goals, and the implications of the technology choices necessary for meeting those goals, as well as the resources it will take to sustain their selected technologies long-term are doomed to fail.

For example, I've seen customers deploy CAT 1 devices for a business process that really needs CAT 3 devices, understanding that CAT 1 is about 1/10 the speed of transmission as CAT 3 it is apparent that this solution will not work. When you mismatch your technologies, the project is likely to struggle because the application will not work as expected. You will be challenged to have a positive user experience and your devices are at risk of becoming a stranded investment.

The key is to work through the entire framework of all the issues you're trying to solve, and prioritize the business processes your organization is targeting with IoT. This contextual information along with geographical considerations will dictate your initial requirements. The next step, though, which is often overlooked, is the consideration of the deployment, the operational management, and the sustainment processes for the solution, or in other words, the entire IoT endpoint lifecycle. Examining that lifecycle end-to-end will drastically improve your chances of success.

Q4: If an organization is already somewhere along the path to an IoT implementation, are there some red flags that they should be aware of to signal they may need to make adjustments?

BILL: I guess it depends on where you are in the lifecycle, right? If you're in the deployment phase and you're struggling to find the resources necessary to manage new processes such as inventory management and fulfillment, or all the logistics around the IoT endpoint, that could be a sign of trouble. At this point, it sounds like your organization needs to engage a partner to think through what you're encountering, and what you might have overlooked.

If you are further along in the process and get an IoT solution deployed, and all of a sudden you're not getting sufficient response times for your end users, that could be a sign that you may have selected the wrong device or network technology. If data isn't getting through to the end user to deliver an acceptable user experience, there's a good chance that something was missed in design, and that your application requirements need more than what the selected technologies can support.

Q5: You've referred to the IoT endpoint lifecycle, can you describe what this cycle means, or what the different phases are in a little more detail?

BILL: Every IoT solution has an endpoint, which is the device that's out in the field collecting data and transmitting that data via network connectivity to some cloud platform or data center, or even back-office systems. Even though there are many IoT solution components, everything really centers around that endpoint – which is key to data collection – and that endpoint has a lifecycle.

The first stage in the lifecycle being deploy, or forward logistics, which has to do with successfully launching, installing, and activating the solution. The second stage is operational management, which ensures the IoT solution is performing in the proper manner, it's up and available, and collecting and transferring data as needed. The final stage is sustainment, or reverse logistics, so when an endpoint stops working, or it breaks, or it needs to be upgraded from 1.0 to 2.0, there are operational processes in place for replacement and solution continuity. At its core, a lifecycle is all about deploy, operate, and sustain.

Q6: What do you recommend as the best approach to effectively managing all of those stages in the lifecycle?

BILL: You've got to do an honest self-assessment of your organization's IoT readiness. Do you thoroughly understand IoT technology and do you have the appropriate vision as to how to successfully apply it to your business process? What is available to your organization in terms of internal resources to execute upon your vision? If you don't have the vision or the technical capabilities, then you should seek a trusted partner that can help you understand what your choices are and how they best meet your business process requirements, and ultimately help guide you through the complexities of IoT.

Q7: If a company does decide to outsource any areas of endpoint lifecycle management, what should they look for in the provider? How do they select the right partner?

BILL: I think engaging a provider that doesn't have a vested interest in trying to push a particular solution or solution component is always the best option for a partner that is a true trusted advisor. An organization that has experience in the IoT industry, understands the implications of various technology choices, and knows how to make a solution function to optimal levels from an operations management standpoint are key factors to evaluating a partner. Businesses should keep in mind that "technology-agnostic" is definitely a critical characteristic for getting the most out of your IoT partner without them trying to steer you into one particular technology choice.

Q8: Lastly, what does a successful deployment look like?

BILL: I think it depends on what your business goal is. You have to establish in your strategy what business process you are targeting and what ROI results you're looking for. A successful IoT deployment is one that can grow, scale, and really help you transform your business, based on what those strategy requirements are.

There are a number of ways you can transform your business processes, whether it be increasing your revenues through better customer satisfaction or new revenue service options, or reducing your operational expenses to better deliver existing services because you're executing just in time and more cost effectively, or some combination of both. If you can realize increased revenues, enhance customer satisfaction, or reduce expenses, then chances are it was a pretty successful IoT deployment. That said, you're not going to get to that unless you've solved for that entire lifecycle of the solution.