Leveling the Monetization Playing Field on the Internet of Things

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"SMBs need to look at the IoT as a new opportunity rather than a new challenge," said Avangate CMO Michael Ni. For smaller companies, e-commerce typically has been only about the website. Now the IoT is changing the complexity of the online experience. SMBs have to figure out how to best optimize that. This not only levels the playing field, but also completely destroys geographic boundaries.

By Jack M. Germain

The Internet of Things is expected to be a US$7 trillion market in six years. However, many small to medium-sized IT firms that do not have the capital to acquire the Nests of the world are left to wonder how they can benefit from this lucrative trend.

SMBs with little or no IT in-house support can monetize this new market without reinventing the wheel. The IoT calls for the kind of less sexy resources many SMBs already have available.

Monetizing the IoT data requires extending the business model to leverage all of the consumer devices that are tied into the Internet. This opens up an entirely new revenue stream.

The IoT is more than smart refrigerators and biometric-tracking bracelets. The demand for connected devices is growing. Also growing is the need for mundane resources, such as more bandwidth, as well as microdevices and sensors that real-time data transfer requires.

"From a vendor's perspective, the IoT appears very attractive. There is a lot of machine-generated data associated with the IoT," said Don DeLoach, CEO of Infobright.

"The ability of an organization to monetize the IoT will have more to do with the specific goals or purpose of that organization than the size," he told LinuxInsider.

Size Doesn't Matter

One of the key factors in approaching the monetization issue is the same for SMBs as for larger companies. That is, they must focus on assessing their business models. They need to consider what types of data they have and what they can get, DeLoach suggested.

"Monetization models are evolving. Some evolve more quickly than others," he said.

Even today, platforms available from third parties make access to monetizing from existing data streams as readily available to smaller companies as to larger ones.

To a certain extent, a larger organization might be at a disadvantage in monetizing, suggested DeLoach. Large companies already have a huge investment in existing infrastructure. Changing to adopt new technologies and the type of infrastructure that takes advantage of the IoT sometimes is not all that easy.

Smaller companies can more easily initiate or repurpose a platform, he explained. They can use the services provided by numerous new companies that focus on IoT data retrieval and analysis.

Rethink the Basics

Initiating and repurposing is one thing. Being clever with what you have is not always so obvious.

One of the main concerns is figuring out a monetization strategy. For instance, how do you collect and analyze all of the data acquired from devices and apps connected to the IoT? How do you react to the insights you get from all of that data?

"Oftentimes, a company needs to act on the information in real time," noted Himanshu Bari, director of product management at DataTorrent.

Otherwise, the window for effective customer interaction is lost," he told LinuxInsider.

Join the Party

All too often, the players in monetizing IoT data have been large companies. What about the smaller SMBs? They need a strategy to buy into the IoT data stream, said Bari.

Mostly, it was larger companies with established IT departments that were among the early adopters of IoT data monetization strategies, he recalled. Now, growth in DataTorrent's customer base increasingly comes from small and medium-sized companies.

"These companies lack the broader Internet infrastructure. They can tap into a new brand of cloud services that cater to such clients," Bari said.

Using companies that provide software to capture IoT-generated data and analyze its significance can be a key element in SMBs' ability to monetize the IoT, he suggested.

Winning Combination

Product makers and appliance manufacturers in most industries have not yet linked their hardware to customers with embedded software. However, it is becoming less uncommon as the IoT infrastructure develops.

One of the drivers to this move to connect appliances to the IoT is the desire to get ahead of the curve with technology. Manufacturers and vendors -- large and small -- can use connected appliances as new tools to interact with customers and to develop targeted services for them, according to Bari.

"Companies dealing with hardware and software are becoming involved in what is essentially a side business to their core offerings," he said.

New Middleware Suppliers

A new wrinkle in aligning companies around the IoT marketplace is how to categorize the vendors. For instance, traditionally two types of customers were drawn to Safenet: sellers of pure packet software; and sellers of embedded devices.

However, "some product makers are not traditionally considered to be software makers," observed Shlomo Weiss, general manager of the company's software monetization division.

"They manufacture hardware that needs embedded software to function. Many of these players are smaller companies. Now they have to focus on monetizing the data streams from the software that they put into their hardware," he told LinuxInsider.

These small companies may lack the IT staff to develop the software or the procedures to gather the data and figure out what to do with it. Safenet and other companies offer solutions to help them monetize the data their software generates.

The IoT is creating a situation in which hardware makers increasingly are including software and connectivity to their products. That is where SMBs can cash in on the benefits of the IoT, noted Weiss.

"Third-party companies like ours become the point of entry for these small firms and SMBs that now are functioning as software vendors but lack the IT staff to make it all work," he said.

A Deeper Dip

The Internet of Things is creating an environment in which SMBs that otherwise did not have an e-commerce presence are planning to go online and offer services, said Michael Ni, senior vice president of products and marketing and chief marketing officer at [Avangate](#).

For companies that already have an e-commerce data flow, a deeper level of data is involved. The type of product makes a difference as to how a vendor monetizes it.

"The IoT gives businesses new ways to reach people. There are new platforms for all these microsegments of the market," Ni told LinuxInsider.

For example, Avangate worked with one company that sold very expensive footwear products. The footwear firm acquired considerable data on its customers through online purchases and turned it into three subsidiary startups dedicated to monetizing that data.

Beyond E-Commerce

For SMBs, the e-commerce platform is the key to monetizing services garnered from their IoT data. Entrepreneurs can take any specific niche and monetize it with services. The platform gathers all of this new information, said Ni.

"SMBs need to look at the IoT as a new opportunity rather than a new challenge," he suggested.

For smaller companies, e-commerce typically has been only about the website. Now the IoT is changing the complexity of the online experience. SMBs have to figure out how to best optimize that. This not only levels the playing field, but also completely destroys geographic boundaries, explained Ni.

"Traditionally e-commerce for SMBs has only been a way to make sales. The IoT is now moving them into a new business model," he said.

Different Things

A line of understanding separates traditional e-commerce from the Internet of Things, cautioned Artyom Astafurov, chief innovation officer and senior vice president at [DataArt](#). One is not the same as the other.

"IoT involves gathering data and tracking maintenance on equipment rather than providing a platform for marketing and sales," he told LinuxInsider. IoT data is used for predicting repairs and such."

Reuse and Repurpose

The Internet of Things is complex. When companies build an IoT solution, they have to deal with many technologies at the same time. That means they have to reuse a lot of open source

technologies. Many of these things were designed to lower the entry barrier into this industry, Astafurov pointed out.

"One of the must-do things for small companies venturing into monetizing IoT data is to use the open source tools already available," he said.

Another must-do approach is not to pay a large IT staff. Instead, leverage platforms like Amazon or Rackspace, as well as Platform as a Service (PaaS) solutions.

"Employ your IoT cloud stack to help reduce the operational costs. Storing these things in the cloud helps to make them more manageable," suggested Astafurov.

Smaller companies should avoid spending time on plumbing and figuring out the messaging and managing of the IoT. They can reuse open source platforms and spend time on product innovations.

Be Flexible

SMBs especially should be aware of different business models for monetizing their IoT data. A subscription service is one option. It provides a starting point for cost. Subscribers can monitor the types and levels of services they use each month.

Another factor is recognizing the need to optimize the entire e-commerce experience. Consider what happened to one of Ni's customers, a very large company that made home automation equipment.

Monetizing that type of product is a different thing than asking how a company monetizes its toaster oven. The company realized that its hardware was almost impossible to monetize.

It could only break even on the hardware -- it was the services that enabled it to make money, according to Ni.

Be Smart

Having a plan and adapting it when necessary helps companies drive their monetization efforts. For example, one of Weiss' customers in the medical device industry branched out by selling to hospitals.

The client wanted to be able to offer monetization services as the basis for developing additional product services for the hospitals. At the same time, it wanted to be able to track how its devices actually were being utilized by the doctors and the medical staff, explained Weiss.

"This lets them better understand how their products are being used, and which features are used most," he said. "That same concept applies to device makers in other industries."

Final Factors

The opportunity exists for smaller organizations to get involved in monetizing the IoT data stream as much as it does for larger companies, emphasized Infobright's DeLoach.

"For me, the Holy Grail of the IoT is the ability for companies to operate more effectively and efficiently," he said. "Putting this in place lets you gather much more critical information that you can analyze. Then you can combine it with other data you already have on your customer base."