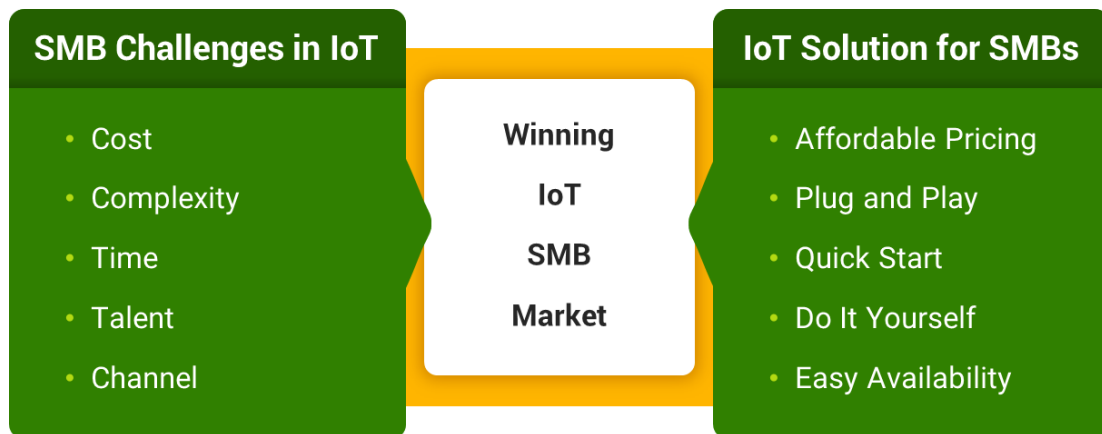


Winning the IoT SMB Market

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For IoT to make a substantial impact, it has to be successful in the small and medium business (SMB) market. The SMB challenges in IoT are different from those of large enterprises, and so the approach to finding solutions should also be different. This PoV discusses the SMB challenges in IoT and the possible solution approach with an example.

Exhibit 1: The SMB IoT Market: Challenges and Solution



Source: EIIRTrend

Creating value for SMB from IoT: Technology is necessary, but not sufficient

More than 90% of manufacturing firms in different countries are SMBs, and they are responsible for 30%–70% of the manufacturing output. Apart from their direct contribution, SMBs are a critical part of the value chain in many industries.

SMBs face multiple challenges in the adoption of IoT:

- **Cost:** The overall cost burden, from landscape assessment to implementation, is high.
- **Complexity:** Managing the complexity of both hardware installations and software implementations to overcome interoperability and integration issues is challenging.
- **Time:** Long lead times, from selecting the right technology provider to implementation, are not feasible.
- **Talent:** Recruiting digital talent to oversee the program and managing these initiatives on a day-to-day basis is a luxury that SMBs do not have.
- **Channel:** Correct partner identification to help put together all the components, such as digital infrastructure, sensors, and monitoring/controlling algorithms is difficult.

To overcome the challenges mentioned, IoT solutions for SMBs should have:

- **Cost-effective and transparent pricing:** Pricing should be cost-effective, with a lower upfront fee and a transparent pay-as-you-go model so that SMBs can plan their investment.
- **Plug and play:** Solutions should be simple—more like plug and play, which can be installed without integration challenges.
- **Quick start:** Solutions should start showing tangible output quickly. A longer lead time will not work for SMBs.
- **Do-it-yourself:** SMBs always have a shortage of specialized talent because of cost and scale. Thus, solutions should depend less on specialized talent and be more do-it-yourself (DIY).
- **Easy Availability:** Solutions should be easily available or accessible. Enterprises can't expect SMBs to spend time searching for the right solution for them.

AWS IoT Solutions Look Promising for SMBs

AWS recently launched five services—Amazon Monitron, Amazon Lookout for Equipment, AWS Panorama SDK, AWS Panorama Appliance, and Amazon Lookout for Vision—for manufacturing and industrial clients. These services are related to operations efficiency, quality management, and safety, and will help clients jumpstart their IoT journey quickly. Large enterprises have already started their IoT journey, but the SMB sector is struggling because it needs a significant investment commitment, technical guidance, and talent. We believe these new solutions by AWS will be handy for mid and small players because they can directly buy this service from AWS and start using them without the help of other technology providers.

These new solutions include both hardware and software components that allow operations to be streamlined and efficient. Some of these solutions can also prove handy for virtual and automated operations.

- **Amazon Monitron.** It is an end-to-end system that uses machine learning (ML) to detect abnormal behavior in industrial machinery, enabling you to implement predictive maintenance and reduce unplanned downtime.
- **Amazon Lookout for Equipment.** It uses the data from sensors to detect abnormal equipment behavior, so you can take action before machine failures occur and avoid unplanned downtime.
- **AWS Panorama Device SDK.** It provides device manufacturers with a device software stack for computer vision, sample code, APIs, and tools to enable and test their respective devices for the AWS Panorama service.
- **AWS Panorama Appliance.** When installed on a network, it can discover, connect to, and process video from networked cameras and run simultaneous ML models per stream. The cameras do not need any built-in machine learning or “smart” capabilities.
- **Amazon Lookout for Vision.** It is a new ML service that helps customers in industrial environments to detect visual defects on production units and equipment in an easy and cost-effective manner.

These AWS solutions can help SMBs overcome their IoT challenges because they are a one-stop shop. The pricing is cost-effective and transparent, and according to the AWS website, can start as low as \$1000 per year for five sensors, including gateways and a yearly monitoring service. Solutions are available to order from the website and are more like plug and play, which SMB owners can implement themselves. It can be up and running in five minutes.

Bottom line: AWS has opened up the IoT market for SMBs. Service providers can capitalize on the opportunity.

The SMB sector is an attractive IoT segment for the whole IoT ecosystem. It is also desirable to digitalize the complete value chain. The AWS solutions give hope to the SMB IoT segment. We will be watching this space, specifically for the following trends:

- **Adoption:** How will AWS offerings accelerate overall IoT adoption in the SMB segment?
- **Solution maturity:** Right now, the depth and breadth of the solution is limited, but with time, solutions should evolve to cover more use cases across industries.
- **Competition response:** How will the competition respond? Will there be more such solutions for the SMB IoT segment?
- **Disruption like cloud:** The growth of AWS cloud or the overall cloud industry was something similar to what we're seeing here. It began with startups and small firms who couldn't afford their own hardware and data centers. With scale, it started making a business case for everyone. Will a similar story be repeated in IoT?
- **Service provider opportunity:** This is also an opportunity for the IT as well as engineering service providers to enable ISVs and hardware manufacturers to cater to the SMB IoT market.

About the Author



Pareekh Jain

Pareekh Jain is Founder and Lead Analyst of EIIRTrend and Pareekh Consulting.

EIIRTrend.com is a neutral platform to discover emerging engineering, IoT, Industry 4.0 and R&D (EIIR) trends across 12 industry verticals. Pareekh Consulting is a focused analyst and advisory firm for EIIR.

A seasoned EIIR professional, Pareekh has seen the EIIR industry from four perspectives: service provider, sourcing advisor, enterprise buyer, and industry analyst.

He is regularly quoted in the media on engineering services, IoT, and outsourcing trends, including Harvard Business Review (HBR), NDTV, Times of India, Economic Times, Business Standard, Hindu, Business Line, Livemint, Financial Express, Rediff, Voice of America, and Business Insider.

Pareekh is a thought leader, having authored various publications on topics related to EIIR outsourcing. He loves business fiction writing in his free time, and has authored a novel, *Who Is That Lady?*

Pareekh received his MBA from the Indian Institute of Management (IIM), Bangalore and his Bachelor of Technology degree from the Indian Institute of Technology (IIT) Delhi.

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