INDUSTRY FOCUS

The Potential of Smart HVAC in India is Enormous & Virtually Untapped



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Q. What is the potential of smart HVAC in the Indian market?

The potential of Smart HVAC in India is enormous & virtually untapped. Not even a fraction of the full potential of interconnected sensors, IOT, data analytics & cloud computing have been deployed here. This is especially true in the SMB segment where the awareness of the suitability of these technologies for the SMB segment till recently, was very low. Also, in recent years, the segment has grown exponentially, with many SMB organizations having to grapple with the problems that come with such growth namely, need to optimize operating expenditure & have greater transparency into operating parameters across their organization

Q. How does loT help in creating energy efficient solutions in the HVAC segment?

Internet of Things has been topping the list of revolutionary technologies for some years, and is definitely one of the most talked about tech innovations around. IOT has applicability wherever there are devices.

In the HVAC space, traditionally there have been 2,3 sometimes 4 separate subsystems which have either been manually controlled or independent or both. The systems here refer to Chillers, Air Handling Units or Ductable splits, Temperature/ humidity sensors and Fresh air/Air quality sensors & the Building Automation Systems. It is very rare to find all of the systems deployed, connected & set appropriately. The first step is to have all of these systems interconnected & set appropriately. This will enable the sensing of dynamic changes in the environment & appropriate alerting but some level of human intervention remains.

However, a true IoT functionality also reguires the Control strategy to be integrated into the system. At this layer, one needs to integrate with the traditional HVAC systems & switch on/off, regulate temperature & humidity, maintain airflow balancing etc. The benefit to customers is that their HVAC system provides uniform comfort, is energyefficient, reacts automatically & speedily to dynamic changes in heat loads & provides visibility into its operations. HVAC is a huge area of concern because it represents the single largest cost of operating a building. Leveraging Internet of Things (IoT) design, the 75F system deploys proactive cloud based algorithms to predict the thermal behavior of a building. Internet connected devices sense, analyze and control the behavior of the building to achieve consistent temperature on a room by room basis while saving up to 40% in energy usage.

Q. What is the growth potential and expansion plans of 75F ?

The growth potential for 75F in the Indian subcontinent is huge. This is driven by 4 factors – increasing automation across commercial spaces, increasing awareness of the need for energy efficiency, customers becoming more demanding in terms of comfort, air quality & operational visibility & lastly new technologies making all of these benefits available & at a price point affordable to most.

New building deployments represent an enormous opportunity with the growth drivers of the Indian economy appearing to be stable for the medium term.And much larger than that are the existing buildings, given that our solution is retrofit-friendly.

The expansion will be across numerous vectors – adding to the capabilities of the solution, enhancing the services suite, growing the installed base, expanding geographically, deploying additional go-to-market channels to name a few...

Q. What is the business and revenue model of 75F

There are 2 business models – one a Project model, to provide a customized solution directly to our customers & maintain the relationship directly. And second a Product model, where we work with select contractors & partners, where 75F supplies the products & the partners would supply, install, perform other site-related work & maintain the relationship.

The revenue streams would be four-fold

- a. Product supply & commissioning
- b. Ongoing annual software platform licencing fees
- c. Annual maintenance contracts
- Value-added services on top of existing installations involving data analytics that drive greater customer facility optimization.

Q. How will Smart HVAC systems revolutionize the building automation system in India?

Smart HVAC systems will revolutionalize buildings in India in the following ways :

- Buildings will become more dynamic in reacting to changes inside & outside & continuing to deliver optimal comfort
- Buildings will become far more energyefficient - their Energy Performance Index scores will go up, their carbon footprint will reduce etc
- Visibility into HVAC operations on a real-time basis will improve as also the quality of reporting, paving the way for continuous improvement. (ISR)