

## How Facilio's Enterprise-wide Platform harnesses IoT and AI to help your facilities become smarter and efficient in real-time



**Prabhu Ramachandran**  
Founder & CEO

Facilio Inc.  
Learn more...

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Interview conducted by:  
Lynn Fosse, Senior Editor  
CEOCFO Magazine

**CEOCFO:** According to the Facilio, Inc site, you offer, "The Smartest Way to Manage Facilities." What is your basic approach?

**Mr. Ramachandran:**

Most buildings currently operate at an individual building/site level without CREs having visibility across their entire portfolio. Even within individual buildings, it is currently typical for there to be multiple software and automation systems that are not well integrated and are instead working in silos. Facilio is an enterprise-wide facilities operations and maintenance platform, which centralizes the collation and interpretation of data across an entire portfolio and enables customers to exercise unified control over their FM operations, driving data and insight-led efficiencies.

Facilio takes a software based approach, which leverages real-time performance data, using a combination of IoT and AI technology, to generate actionable insights and provide specific process control. Our SaaS solution empowers built facilities by integrating predictive maintenance, sustainability and tenant experience through a data-driven and unified approach. While all automation produces data, adding connectivity using IoT, and contextual intelligence using AI, enhances the "smartness" quotient of this data. Data contextualized in real-time helps CREs, FMs and CAFM providers to anticipate, troubleshoot and manage to an unprecedented degree. This makes Facilio's solution predictive rather than reactive - the smartest way to manage facilities.

**CEOCFO:** How does your solution work?

**Mr. Ramachandran:**

The Facilio approach features unified enterprise-wide facilities O&M that delivers a comprehensive solution to managing building operations, maintenance, sustainability, and the tenant experience. It gathers the operating data of the various components of a building and its mechanized elements in real-time, using IoT technology. This data, which was lying unused and dormant in legacy models, is a goldmine of information and holds the key to the operational performance transparency across portfolios. Analyzing and interpreting this data using AI and ML not only yields actionable insights but these insights also enable data-driven decision making, empowering CRE owners and FM's to be in control and drive the optimal performance of their



**Facilio Energy Dashboard**

buildings, across functions as diverse as maintenance, energy & sustainability, workforce management and more. By empowering existing technologies in this fashion, Facilio can help CREs save up to 30% in operating expenses. The highly repeatable, scalable and predictive model of operations that results, transforms building performance and occupant experience, adding to the value-perception of the properties as modern, service-led facilities.

**CEO/COO:** *Would you give a couple of examples of predictive and strategic compared to reactive and tactical?*  
**Mr. Ramachandran:**

All machinery is subject to wear and tear and becoming less efficient over time. A combination of real-time data based Fault detection and diagnostics and machine learning driven predictive analytics can optimize the effective lifespan and performance of these high-value assets. Breakdown of such expensive assets can mean a huge capital/cash outlay, and more importantly, downtime, which adversely impacts the occupants of a building, impeding smooth functioning of an office a mall or an airport. Repairing such equipment once broken would be an example of reactive maintenance.

On the other hand, preventive maintenance is also not an ideal solution. Not all machinery or assets in a building are subject to the same quantity and quality of use. Hence having a standard benchmark of maintenance to prevent breakdowns, like number of months, can sometimes be an unnecessary cost. Gathering and analyzing data, for example about maintenance of lifts, by basing it on usage and trips, rather than the number of months or time, would be a more predictive way of handling wear and tear, while avoiding the cost of servicing machinery not subject to the same usage. This is where incorporating Facilio’s enterprise platform for facilities operations and maintenance (O&M) can help enable portfolio-wide efficiencies by collating data from all the disparate systems, and then generating actionable insights to guide maintenance that preempts both service disruptions/downtime and performance inefficiencies.

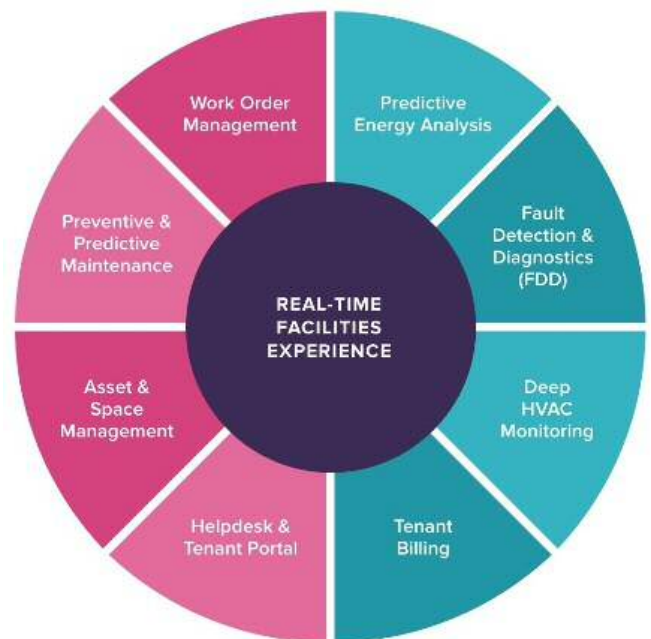
**“In my opinion, the more accurate view of our product is as a facilitating, monitoring and synergy generating platform, that transforms the passive operations of the previous generation of technologies into an interactive, agile and predictive iteration of themselves. The basis of our approach is not to replace but to transform existing automation, by unlocking potential.”- Prabhu Ramachandran**

The IoT aspect of the Facilio solution uses data monitoring to predict asset and system level performance and requirements. Essentially, predictive algorithms and machine learning techniques use historical data to make predictions and make a system more proactively robust and agile.

**CEO/COO:** *Who is using Facilio today?*  
**Mr. Ramachandran:**

Our customers are typically the owners of a large portfolio of real-estate assets, such as CREs and corporates who own or lease real estate. This includes clients who own or operate chains of office buildings, malls, hotels, hospitals and large enterprises with multiple premises from which their business operates. We have customers in the Middle East, India, Brazil and the US and currently manage a cumulative 30 million sq ft of built area. Being an Enterprise-wide Platform for Facilities Operations and Maintenance, the Facilio solution produces optimal outcomes for every kind of stakeholder in the industry. It accrues benefits to CREs and FMs, as well CAFMs and BMS enterprises. We, therefore, anticipate adoption by the entire gamut of industry stakeholders and this is being borne out by our customer profiles.

**CEO/COO:** *Is there a single solution? Are the modules for different aspects of management?*  
**Mr. Ramachandran:**



The Facilio enterprise-wide platform consists of collecting data from multiple sources within the built environment, such as automation and sensors, as well as weather and operational data pertinent to each building across a portfolio. It then

utilizes this data to generate actionable insights, with the help of AI based analytics, to empower use across the entire asset portfolio, based on specific customer needs. For example, a building owner could use the modules individually, either for energy management and sustainability, or for asset optimization, or at times only for workforce management and for creating tickets integrated with an existing CAFM. In other instances, they have the option of using the platform for all of the above applications, and even other use cases like digitizing audits and compliance across portfolios. The solution provides enterprise-wide, real-time performance visibility, enabling a unified approach to facilities management, which translates into optimized efficiencies and ROI for CREs, FMS and CAFM operatives, as well as a delightful experience for occupants.

Our solution embeds distributed processing power, using an IoT approach, in conjunction with real-time connectivity as well as Big Data Analytics, AI and Machine Learning, resulting in a system that interprets performance, generates insights and enables predictive operations. Cloud computing can then be used to extend this transparency across an entire portfolio. The Facilio solution should neither be looked as a single isolated solution or a modular one. In my opinion, the more accurate view of our product is as a facilitating, monitoring and synergy generating platform, which transforms the passive operations of the previous generation of technologies into an interactive, agile and predictive iteration of themselves. The basis of our approach is not to replace but to transform existing automation, by unlocking potential. Our product suite addresses key pain-points and offers a three-pronged real-time and data-led solution that includes:

### 1. Asset lifespan enhancement

From chillers to elevators, Facilio unifies all asset performance in real-time, allowing predictive control of the facility asset landscape, and helping save thousands of dollars every month. Facilio's ability to create deep system visibility and centralized control enhances the functional capabilities of built assets, reduces downtime and diminishes maintenance costs. It also crafts premium experiences for clients, identifies opportunities buried in passive data, and also generates benchmarking & reports.

### 2. Workforce productivity

Empowering facility teams to be mobile and highly responsive with real-time problem insights, Facilio saves hours of wasted investigation time, and enables a smart workforce using tools like automated, mobile workorders and a unified maintenance app.

### 3. Sustainability and savings

Harnessing actionable insights can radically overhaul the power and water consumption of buildings, predict resource utilization, and effectively benchmark energy savings. IoT-based data acquisition creates portfolio-wide performance transparency, while predictive analysis enables real-time action.

## **CEO CFO: How was Facilio's solution developed? How does understanding of AI and IOT come together?**

**Mr. Ramachandran:**

Our founders' collective background in cloud computing, AI, IoT and Machine Learning solutions inspired an approach that we were convinced could radically transform the operations of buildings. When we looked into existing gap between automation and facilities operations, it became clear that there were a multitude of opportunities for refinement and creating efficiencies. Our vision was always to not just enhance one building, but entire portfolios – since software based solutions are easily scalable. We realized the solution was to provide an enterprise-wide software platform that can concurrently optimize energy management & sustainability, asset management and workforce management, unifying operations like never before. The vision was to make it conveniently accessible via a unified dashboard and an App, to deliver the kind of customer experience and convenience more commonplace in B2C services, within the B2B space.

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**Consumption jumps over 50% compared to yesterday**

CRITICAL

Threshold Metric  
Energy

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Mains Meter

Created On  
22-04-2018 1:



#5132 ASSIGNED

Check Root Meter and Control Panel at Block B

To Jian Yang

20 minutes ago



Our focus was on leveraging technology to unlock potential, by analyzing dormant, existing data. The rest of the solution virtually suggested itself, from that basic premise, along with a detailed study of industry pain-points, as well as inputs from our early adopters. The emerging consensus on Smart Buildings and Smart Cities was certainly part of our inspiration. It drew our attention to the huge potential for a positive impact that can be generated by technological intervention into the operations of existing real estate and the assets that these properties are embedded with.

IoT helps CRE owners and FMs make data-driven decisions, improve productivity of workforces, detect problems, improve maintenance using predictive algorithms and be optimally energy efficient. The Facilio solution essentially mimics an organism that empowers passive operations through an IoT based 'nervous system' that redirects data to an AI and Machine Learning based interpretive 'brain' which adds the contextual intelligence to it. Management, maintenance teams, and tenants are also able to communicate and respond freely, minimizing pain points and losses, and, in fact, realize positive ROI and savings. Tasks across all operations can be automated - including in the realm of work orders, alerts, worker allocation, and maintenance prioritization – using a machine learning approach. And optimally maintained assets can mean optimal asset performance, reducing energy wastage and overheads, making buildings more sustainable structures.

**CEO CFO: *What is involved with implementation? How do you allay trepidation of change?***

**Mr. Ramachandran:**

Implementation of the Facilio solution is both rapid and low cost, when taking into account the tremendous value it unlocks. Essentially the hardware involved is quite minimal – more or less it constitutes sensors, some distributed processing power and a central hub. As an enterprise-wide platform for facilities operation and maintenance, powered by an IoT and AI-driven software core, our comprehensive solution allows CRE owners and FM's to manage building operations, maintenance, sustainability, and the tenant experience, all in one solution. The software based approach not only lowers the price of entry, it also ensures fast implementation, and smooth ongoing updates and tweaks with minimal disruption. Plus the fact that it unlocks dormant potential from all existing automation and high-cost assets and systems already existing in buildings is seen as a great value-addition.

I strongly believe that the sheer rationality of the solution is enough to allay any trepidation, once it has been explained and demonstrated. Given how astute the commercial real estate sector is, the obvious advantages and benefits are not a hard sell. Furthermore, the initial deployments have been so successful that any prospective clients can see unequivocal proof of the effectiveness of our approach. To be honest, the advantages were so readily demonstrable right from the proof of concept stage, that most interested parties were seeking no more than quite standard clarifications, such as how the transition was to be managed so disruptions were kept to minimum, costs involved and so forth.

The FM sector is presently undergoing massive digital transformation, something it was slow to catch up to. Therefore CRE owners and FM's are welcoming this software-led disruption of the industry. At the same time we are trying to create a knowledge series of seminars, events and case studies to help new adopters understand how to go about this transformation step by step.

**CEO CFO: *How do you reach out to potential clients?***

**Mr. Ramachandran:**

- The need for a Enterprise-wide platform for Facilities Operations is rapidly becoming mainstream as Facilities heads are looking to transform their operation with tech and be in the driver's seat of their day to day operations.
- A sizeable number of customers are already looking out for such solutions. We get strong inbound requests from this growing pool of prospects.
- We are actively engaging with the FM community, customers, media, FM associations etc. to educate about the impact of efficient operations with technology
- We have a strong word-of-mouth referral network, as our existing customers serve as the best champions of our brand.

All of these generate a good amount of visibility for us.

**CEO CFO: *What is the market for opportunity for real time facilities management?***

**Mr. Ramachandran:**

I believe the opportunities are unprecedented in scale, compared to virtually any industry one can think of. Buildings are a ubiquitous and basic part of our infrastructure. When one considers the fact that post construction spend on built spaces constitutes 80% of the total capital commitment, you can truly get a picture of the enormous scale of the opportunity. I think another significant contributing factor is that, for whatever reason, facilities management has been using repurposed technology from other industries. Having a specific and optimized set of tools to empower the operations of such a critically important industry is a no-brainer. The Facilio solution is more than just a technology; it is an entirely new generation and paradigm in the FM industry. And real-time is no longer a nice-to-have feature. It is an imperative that is rapidly shifting from B2C environments into B2B arenas. The ability to unify operations at an enterprise-wide scale, while leveraging existing technologies rather than replacing them, facilitates a transformation that positively impacts every process and all stakeholders. The market is virtually limitless, simply because of how comprehensively our approach adds to efficiencies and operations. The sheer scope for its implementation dwarfs virtually any reimagining of a business model one can consider in comparison.

**CEOCFO: *With so much opportunity how do you decide where to focus your efforts at Facilio?***

**Mr. Ramachandran:**

Our business model is based on innovation and relationships. We believe the merits of our product are self-evident, but we are also aware that there is even more room to improve its scope and effectiveness. Concurrently, we are also acutely aware that a solution as systemic and synergistic as ours requires coordination between several stakeholders to be able to deliver the full potential of the transformation it is capable of. Considering these fundamentals, our approach at Facilio centers around R&D as well as creating collaborative partnerships in the industry. Our business model proceeds from these basic priorities as guiding principles.

**CEOCFO: *What is your global reach?***

**Mr. Ramachandran:**

The business currently already has an active presence in the US, Middle East, India and Brazil. We are also developing partnerships and local representation in many other markets. While the initial markets we have entered hold some of the greatest promise for rapid adoption, essentially our solution has universal application. Facilio is a driven company that is very excited about its product and our plans are ambitious. We honestly see virtually unlimited scope for expansion that we intend to pursue in the most strategically rational way we can.

**CEOCFO: *What, if anything, has changed in your approach as more and more facilities are using your services?***

**Mr. Ramachandran:**

While the essential basis of the approach is still consistent with our original vision – real-time, unified, digital evolution of the FM landscape - each implementation helps us tweak the model further. Our clients have also provided feedback that has helped us identify some not-so-obvious pain points that the FM industry has been grappling with. Fortunately the approach we have taken is highly customizable and open to evolution. As more and more facilities implement the Facilio solution, we have continued to identify opportunities that are both universal as well as specific to certain kinds of buildings and infrastructure. I think this is likely to remain an ongoing process. I don't anticipate this to change. Emerging technology will continue to expand possibilities for intervention and an expansion in the number of implemented solutions will trigger more insights for further innovation.

**CEOCFO: *What are your plans for the recent funding?***

**Mr. Ramachandran:**

We are investing in R&D to build more capabilities around Machine Learning, and broader use cases within real estate Operations and Maintenance. We are also using the funds to setup stronger operations within each of the regions we operate in. We recently setup a local office in Dubai and have a strong team to support customers. We are setting up operations in the US now and will soon start in other regions.

**CEOCFO: *Why choose Facilio?***

**Mr. Ramachandran:**

For the simple reason that it ticks all the boxes in terms of what is on the wish-list of CRE owners and FM's for driving efficiency across their portfolios :

- an enterprise-wide platform for facilities operations and maintenance,
- specifically designed for the FM and real estate industry,
- that unifies disparate & siloed automation systems in a building,
- harnesses the power of real-time data collection and data intelligence using IoT, AI and ML,
- to derive actionable insights
- that empower owners and FM's alike to drive efficiencies across their portfolios
- and predictively manage their Workforce; Energy/Sustainability; and Asset Optimization
- while creating delightful facilities experiences for their tenants and ROI

Facilio's software based solution is completely unique in its ability to address several operational requirements with a single platform. Facilio's hardware agnostic IoT edge and the cloud platform can effectively integrate data and process control across any specific profile of the typical multi-vendor and dispersed systems. The IoT, AI and Machine Learning approach enables a compelling simplification of management while transforming possibilities for intervention across complex infrastructures. While there are some examples in other industries that can claim to have achieved these counterintuitive outcomes as well, the sheer degree to which we are able to achieve this is, in my opinion, unprecedented. The Facilio solution provides enterprise-wide performance visibility, enabling a unified approach to facilities management, which translates into optimized efficiencies and ROI for CREs, FMS and CAFM operatives, as well as a delightful experience for occupants. Such an approach is a complete reimagining of possibilities within the industry.

I believe fully integrated and digitized IoT smart buildings powered by enterprise-grade data-led platforms like Facilio are going to become the gold standard of modern buildings, but quickly transition into the "new normal". The advantages that Facilio delivers for CREs, FMs and CAFM providers are set to become standard industry practices simply because early adopters are already demonstrating that the competitive advantages gained are a gamechanger. The solution is effective whatever the size or scale of operations. The Facilio solution transforms facilities management into a highly automated and optimally integrated system that benefits all stakeholders, from tenants to management and owners.

The logo for Facilio features the word "facilio" in a bold, dark blue, lowercase sans-serif font. The letter 'i' has a small pink square above it, and the letter 'l' has a small teal square above it.