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# Evolution of CMMS

Unlock game-changing building operations in the digital era



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How leading real estate players across the globe are leveraging Connected CMMS to run effective operations.

# Executive summary

*With the dizzying rate of change in technology and increasing competition driven by the globalization of markets and technology, we must not only be educated, we must constantly re-educate and reinvent ourselves.*

*Stephen R. Covey*



The built world is going through sea-change, caused by several significant macro-changes.

For instance, take sustainability. The World Green Building Council (GBC) urges real estate businesses – which generate 40% of annual global CO2 emissions – to prioritize decarbonization goals and ‘reach net-zero in operation for all assets under their direct control by 2030’, which is barely seven years away.

Next, post the pandemic, The World GBC includes protecting health (including air quality, water quality, and mental health) and prioritizing comfort (including thermal comfort, lighting, acoustics, and more.) as significant contributors to health and well-being within the building.

Building owners, operators, occupants, and government authorities - **all demand more from buildings today than was ever imagined before the pandemic.**

**This shift has brought backend operations and maintenance (O&M) teams to the forefront, placing them in more strategic roles.** Today, they are tasked with not just reducing operational costs but also delivering high-performing portfolios while they're at it. And with great power comes great responsibility—the stakes have never been higher to make effective operational decisions, drive innovation, solve for occupant-related challenges and more.

On the flip side is the stark reality of the technologies available today. Take O&M software, for instance. Computerised Maintenance Management Software (CMMS) or Computer Aided Facilities Management Software (CaFM) locks together the various moving parts of any building portfolio – a fundamental tool O&M teams rely on for managing day-to-day activities. It's the keystone of property operations and facilities management. Historically, they were designed to be a system of records, repurposed from industrial solutions at a time when facility management practices were primarily reactive.

**Unfortunately, CMMS hasn't evolved since then.** It continues to be a mere legacy system of records for capturing asset and maintenance schedules. It fails to serve meaningful/holistic value for O&M stakeholders across the board. It sits in a silo and lacks optimization features—in an era when you should be automating your operational processes, O&M teams are left working around the rigidity, inadequacy and non-interopability of traditional CMMS software.

Intuitively, operations leaders know this, and have tried adopting various point solutions to fill in the gaps or solve for specialized needs. This approach put them in a software maze and only created more silos. Often, they are also caught in a state of indecision owing to the complexities and uncertainties of change management.



A recent survey revealed that 20% of businesses say “change management” is the main barrier preventing them from acting on their operations goals.

However, not making the change is costlier and more damning. Every minute of indecision about transforming the CMMS is money and opportunity lost in operational efficiency, workforce productivity, customer experience, sustainability, and competitive advantage.

**To support the evolving roles of O&M teams, building portfolios need a robust, effective software toolkit to navigate this shift.** One that can support evolving use cases like occupant experience, condition-based maintenance, or energy efficiency. That enables them to win in their strategic roles.

The answer therefore lies in acceptance, first and foremost. Acceptance that CMMS in its current form is inadequate to support O&M teams in their evolved roles. It needs to ‘change,’ and NOW.

**Often new challenges don’t necessarily call for new innovation but a reimagined approach to existing core systems. CMMS holds strategic importance in the role of O&M teams today and in the future. Which is why it is important to initiate conversations around what it is today, and why it needs to be reimagined.**

This guide presents an analysis of the current state of CMMS in building O&M, and the barriers for O&M teams to effectively transition into their strategic roles. It explains the possibilities that can be unlocked with SaaS driven innovation and suggests a viable strategy for building owners and operators to unlock that potential.

# Industry Voices

What top building O&M experts think about the evolution of CMMS?

'Old style' CMMS is all about the manual processing of data and a one-sided vision of the job to be done. It lacks the ability to turn the data absorbed from the myriad digital devices used in a building into insights. So, we cannot trigger any alarms or take action from the CMMS. Even the data we may have is not actionable.

Most CMMS today lack real-time insights on the tasks, block transparency on processes and promote the subjective valorisation of service providers.



**Cindy Hermsen**

CEO, FM Innovators

Good preventative maintenance needs to amass asset data from myriad sources with proper data modeling. Legacy CMMS solutions do not have flexible import-export options to support this. They also lack planning and scheduling functionality. So most of the operation tasks happen outside the CMMS, making it hard for businesses to realize the real value from their CMMS.



**Jonathan C. Thomas**

PE, CEM, CRL, President, Building Maintenance Optimization Consultants, Inc.

Despite their high price, current software has limited customization and less integration with other applications – accounting, CRM, etc. Plus, their complex UI makes it difficult for new users to navigate. These can be huge disadvantages for enterprises and companies with a large number of employees.

The importance of sustainability is increasing. CMMS that supports integration with energy management tools will become indispensable. Future CMMS must include advanced analytics capabilities, enabling firms to comprehend their maintenance better and make data-driven decisions.



**Muhammad Jawad**

Property Manager, IMKAN Properties

Having effectively designed and easy-to-navigate user interfaces are critical for users to access the CMMS via their mobile phones. Legacy CMMS have been incapable to make this happen.

'Future-ready' CMMS is a user-friendly open-source ecosystem with sustainability at its core, offering unlimited scalability, seamless cross-functional communication capabilities and integrated payment solutions.



**Sumith Sukumaran**

Operations Manager, Quality FM

# The built world is facing its watershed moment.

The global real estate industry faces uncertainty, announced [Deloitte](#). Revenue stagnation, increasing costs and ESG compliance are primary concerns.

To say that the pandemic turned the world upside down is barely a hyperbole — how people live, work, shop and entertain themselves has changed dramatically. The climate crisis is growing increasingly serious each year, with governments tightening regulations. The need to decarbonize and turn net zero is higher than ever. In the middle of all this, [JP Morgan](#) and [Goldman Sachs](#) predict a recession looming.

These factors add increasing pressures on property operations across industries. Being operationally effective is a top priority for every O&M decision-maker. They are looking for incremental efficiencies — doing more with less through streamlined workflows and automation. They also seek radical transformation — visibility, agility, predictive capabilities and more. In the real world, this is what it looks like.

# Retail spaces are not just shops, but **experience centers**

In retail, e-commerce has become the choice for everyone who just wants to pick, click and check out. So, the physical retail space is pushed to offer a lot more: an experience that inspires customers to visit the store. As a result, something as simple as an air-conditioner not working or a faulty light fixture in the trial room can directly impact sales!

## For Operations Teams

All assets in the physical store must be maintained in top-notch condition, controlled in flexible ways, delivering exactly what the brands want the customers to feel.



# Office spaces are **collaboration venues**

With work-from-home becoming the norm, workplaces are no longer a seat to sit and type away. 60% of office workers expect to work in hybrid mode. Fewer employees are coming to the office, utilization has reduced, and so have rental revenue and traffic. To attract top talent, organizations are reimagining office spaces for collaboration, engagement and community. McKinsey suggests property owners/operators need to “make the workplace magical.” They can’t achieve this with mere maintenance, however good that is. So, operations teams will feel more and more pressure to deliver stellar physical-digital experiences.

## For Operations Teams

Office spaces must be flexible, adaptable, enable better employee experience, and offer more than just a cube farm. More importantly, it must deliver a seamless physical-digital experience.





# Property-heavy businesses **seek more control**

Universities, healthcare facilities, entertainment venues, theaters, and other community spaces, who were so far outsourcing their property operations and maintenance, are under increasing pressure to cut costs and grow revenue. They are seeking to understand utilization and optimize usage at all corners.

## For Operations Teams

This can only happen with 360-degree visibility into the space, its maintenance and assets.

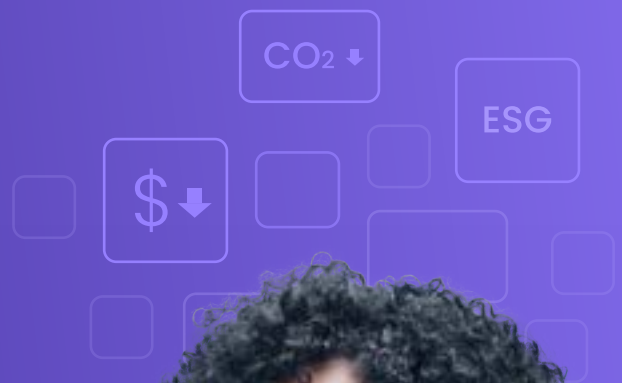


# Sustainability is a pressing priority

“Approximately \$9.2 trillion in annual investment will be required globally to support the net-zero transition”, estimates McKinsey. Every property faces regulatory pressures to become green, decarbonize, improve energy efficiency, upgrade air-conditioning/heating/cooling systems, with set point optimizations based on occupancy, etc.

## For Operations Teams

This requires granular visibility into performance on the environmental, social, and corporate governance (ESG) metrics; automated workflows to optimize usage; HVAC / energy optimizations to avoid excessive emissions and more.





As the world of real estate adapts to these changes, the goals for operations teams have changed dramatically too. Merely doing maintenance/contractor/asset management, however efficiently, isn't enough. Ops teams are now responsible for cost savings, tenant/occupant experience, enterprise agility and more. These present unique challenges that their current tools/ecosystem aren't equipped to take on.

## Digital disruption in enterprise building operations

Early  
2000's



Salesforce  
Automation



ITSM &  
IT management



Subscription  
Management



Now is  
the Time

Digital disruption in enterprise  
business operations

Past  
2020

CHALLENGE

# Times have changed. But tools have not.

The cornerstone of property operations is the Computerized Maintenance Management System (CMMS). But that's archaic, outdated and ineffective to address the challenges of tomorrow.



## Paul Vandervlis

General Manager,  
Facilities Services of Investa

Our buildings are designed for the way people work today – and the way we want to work in the future. We think of our office buildings as communities as well as assets. Yet our property operations tech stack was siloed and hindered the stellar customer experience we want to offer.

Modern demands for building operations today go beyond just maintaining facilities and assets.

They are focused on creating

- thoughtful, safe, and seamless occupant experiences,
- smart maintenance using condition monitoring sensors,
- achieving increasing operational efficiency,
- and making sustainability a habit.

If you're using a legacy CMMS, you know better than anyone how far-fetched these use cases are for it. The widely used CMMS across the globe are over 50 years old. They were designed for manufacturing organizations to optimize the utilization of physical equipment like machinery, vehicles, etc.

In the 2000s, when commercial real estate grew, the traditional CMMS was repurposed—with adaptations and band-aid solutions.

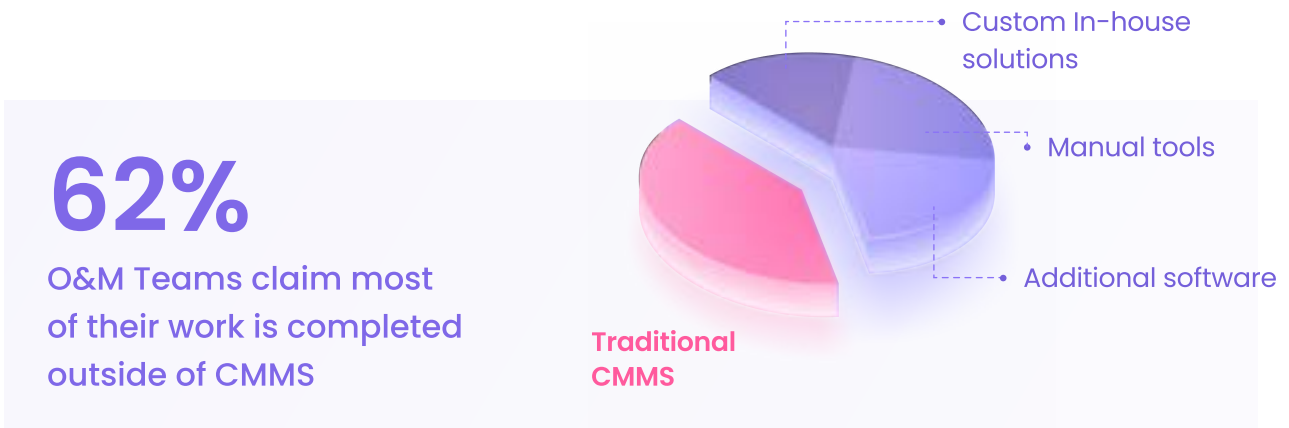
**Naturally, this created and compounded challenges.**

## **Blindfolded asset maintenance**

Traditional CMMS is merely a system of record for what you own/have. It provides no insights, no predictive maintenance capabilities, no utilization improvement opportunities and so on. This significantly affects the asset lifecycle and performance.

## Non-existent or broken user experience

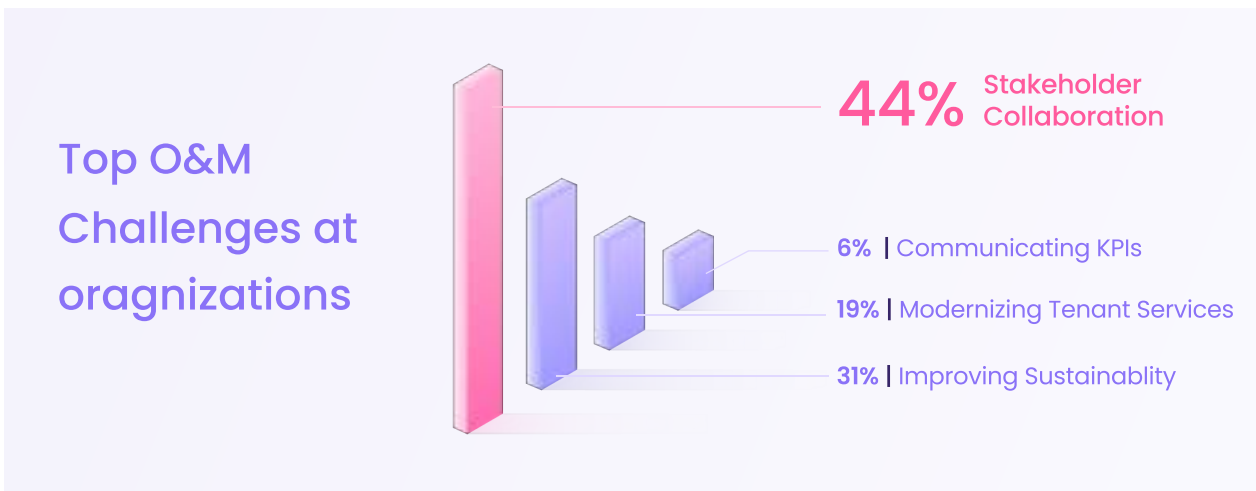
CMMS isn't built for the end-customer, so it does nothing to facilitate tenant/occupant experience. Its technician-only focus leaves ops teams to scramble through spreadsheets, email, telephone, chat and purchased software and custom in-house solutions to complete the simplest of tasks.



CMMS in its current form is inadequate for modern O&M needs

## Lack of collaboration capabilities

Ops teams speak to each other and vendors via email, text messages, WhatsApp or use a custom intranet tool, scattering conversations. No wonder 44% of O&M leaders identify team collaboration as their top challenge.



## Lack of interoperability

According to a Facilio survey conducted during the 'Rethinking CMMS' webinar, 62% of respondents use a mix of manual methods, bespoke tools and custom in-house solutions for tasks that their CMMS can't do. These systems don't talk to each other. This prevents operations teams from having contextual and historical information about the assets they manage.



## Highly manual processes

Operations teams use myriad tools for processing invoices, creating work orders, evaluating completion reports, collecting feedback, etc., wasting time in manual data consolidation. The worst part is these tools are legacy, siloed and non-interoperable, that automation becomes a herculean task.

## No visibility

When an operations leader asks for a report, someone manually collects the data from various tools and creates one on spreadsheets or slides. There is no way to look through data and serendipitously find opportunities for growth or optimization.

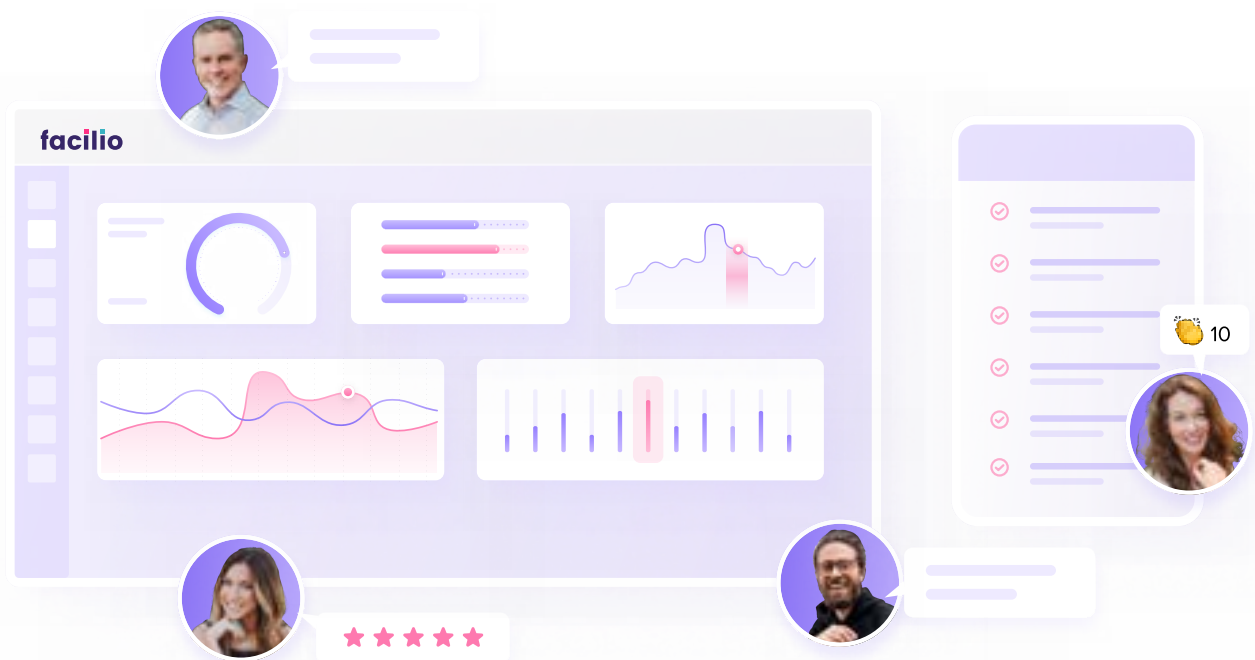


In summary, the traditional CMMS isn't designed for customer experience, collaboration, interoperability, efficiency, automation or insights. To compensate for the incapacibilities of the CMMS, property operators grab onto various tools and band-aid solutions. Time is ripe for change.

# Winning strategy for 2023: SaaS-driven efficiency, agility and innovation with a Connected CMMS

## Your CMMS needs a digital transformation.

Winning property operations depends almost exclusively on having the technological foundation to power your business. That technological foundation — your CMMS — requires a radical new approach. We believe the radical new approach will be defined by the following five factors.



# #1 Connecting systems, processes and people

**Reimagine property operations as a holistic and unified function.**

Property operations involve physical and software systems, multiple processes and workflows, as well as various kinds of people. A Connected CMMS connects them all effortlessly.

## Connecting people

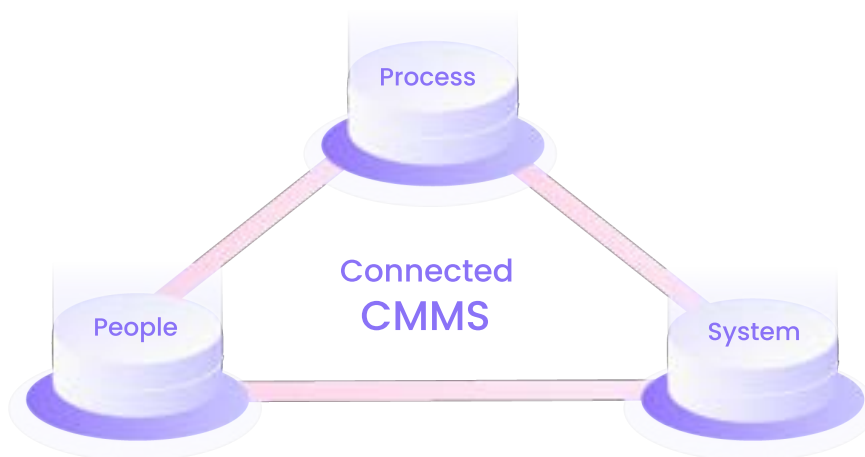
A winning CMMS brings all stakeholders — vendors, tenants, occupants, operations teams, technicians or executives — to one place for seamless collaboration. It allows users to receive and share updates in real time at their fingertips.

## Connecting processes

A winning CMMS optimizes, digitizes and automates processes across OT/IT systems, ensuring speed, accuracy and workforce efficiency.

## Connecting systems

A winning CMMS brings together all systems, be it traditional asset repositories or modern sensors, gathering real-time data to build context. It enables no-code capabilities to integrate CMMS workflows with any system you use.



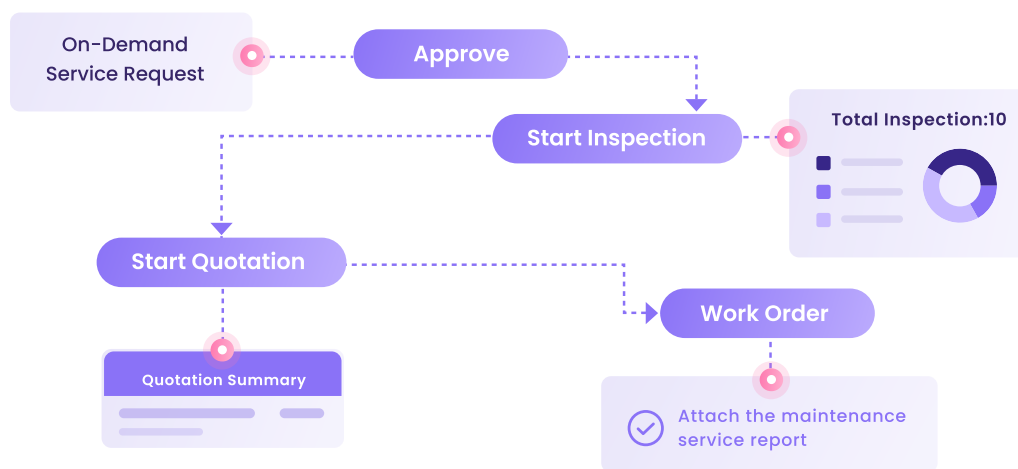
*In short, your CMMS becomes the foundation on which your winning property operations strategy is built.*



## #2 System of action

**Get everything you need to forge your future.**

A traditional CMMS is a system of record about assets and maintenance activities. A modern Connected CMMS is a system of action—empowering you to proactively address concerns, optimize performance and stay ahead of potential issues.



Some of the most common use cases for a Connected CMMS as a system of action are:

### **Condition-based maintenance:**

Schedule maintenance activities based on pre-determined conditions. For instance, A/Cs need yearly health checks, sprinklers need quarterly cleaning and so on.

### **Alarms to work orders:**

Automate the creation of work orders based on alarms/alerts from IoT-enabled devices. You can also enable automatic vendor selection based on past records, quality and speed of service delivery, proximity to location, etc.

**Guided inspections:**

Convert your existing inspection checklists into a guided process on the mobile app for the inspectors to enable accurate and complete inspections to strengthen compliance posture.

**Broadcasts and announcements:**

An upcoming event, a change in process, downtime—send notifications and reminders to everyone in one go. These proactive communications minimize disruptions, improving occupant experience.

**Executive visibility:**

Get granular and high-level dashboards for every KPI that's important to you. Whether it's vendor performance, asset lifecycle, sustainability metrics or team productivity, get the data you need to take appropriate action.

Our executives need a bird's eye view of how our business is performing to make data-informed decisions. However, this information is often scattered across various systems and software, making it difficult for our stakeholders to access and extrapolate required value at the right time.



**Hanie Abdul Sathar**

Director, Eurohealth Systems

## #3 End-to-end O&M

**Integrate all operations and maintenance activities in one place.**

Operations and maintenance (O&M) is not a singular activity; it is a combination of maintenance management, vendor management, service management, visitor management, audit and compliance, finance and accounting, sustainability benchmarking and so on.

Imagine this

- 1 A tenant raises a service request from their mobile app.
- 2 The ticket is automatically assigned to the best vendor within optimum resolution time (with options for operations teams to intervene if needed).
- 3 The technician shows up at the security desk, where a pre-approved digital visitor pass is waiting.
- 4 The technician completes the task and updates the app in real-time.
- 5 The tenant is notified and invited to give feedback.
- 6 If the feedback is negative, a notification is sent to the operations teams to interject and resolve immediately.
- 7 All the relevant data, such as the nature of the request, repairs to the asset, response time, service times, and tenant feedback, are all updated in real-time in the dashboard.

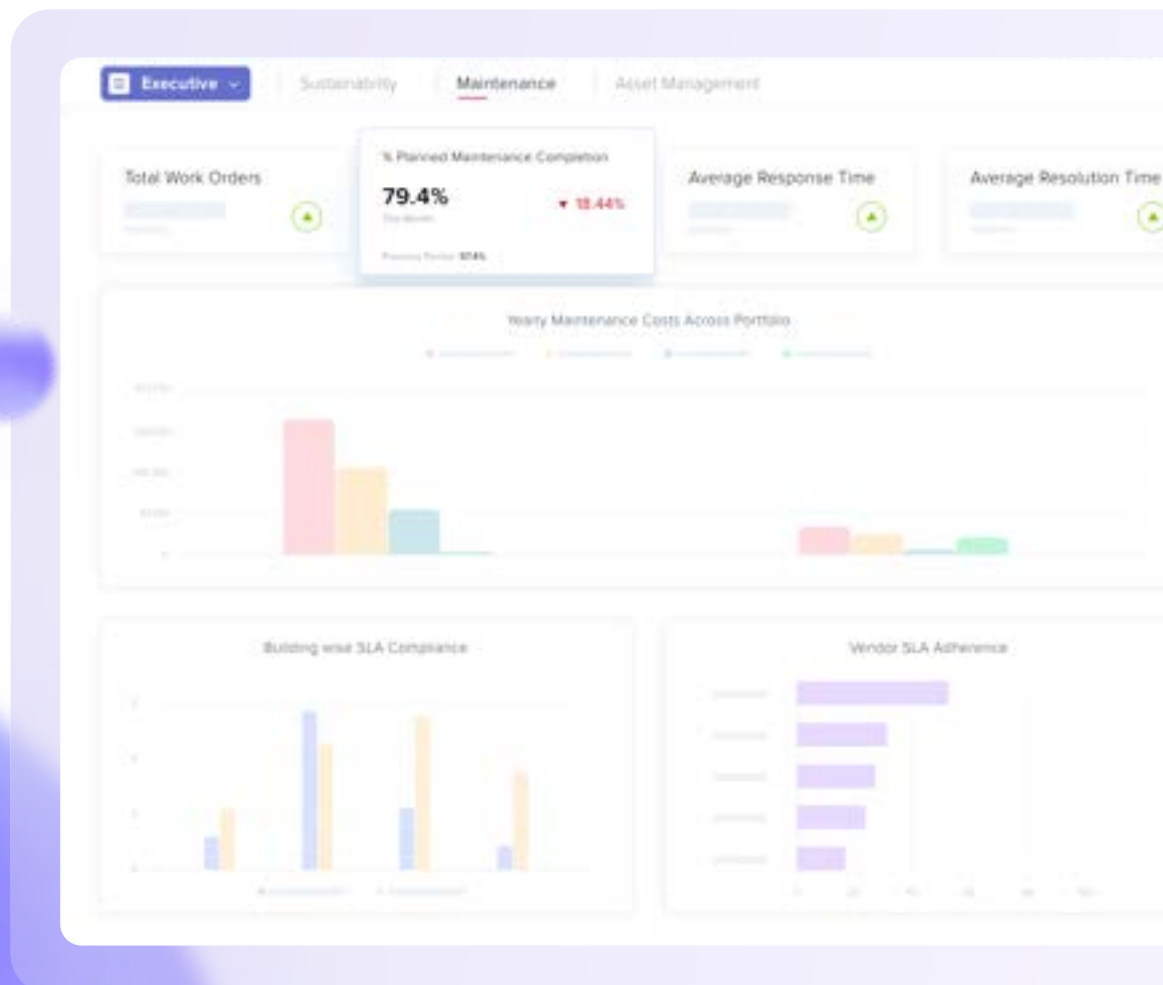
A modern Connected CMMS will enable all this and more for all O&M activities to be managed, monitored and optimized from a single pane of glass.

We imagined and designed ICD Brookfield Place to be a new benchmark in the geography for sustainability, customer experience, well-being and technology utilization. We invested in state-of-the-art materials and technology to make the building future-proof. To maintain and run in that way, we needed a cutting-edge Centralized Property Management Platform.



## Haithem Ibraheem

Property Operations Manager, ICD Brookfield Place



## #4 Platform approach

**A quiver full of business capabilities, integrated to form a valuable whole.**

The best way to avoid the pitfalls of a narrow-focussed traditional CMMS is a singular platform for flexibility, agility and innovation. This is defined by a few factors.



### **Modularity**

As we say, every property is like a snowflake, slightly different from the other. To make your CMMS right for you, it needs to be modular, allowing you to customize it with the features you need. A CMMS built with a platform approach will be modular by definition.



## Self-serve

No one wants to send an email or call a helpdesk to raise a simple complaint or give an update. The platform approach brings stakeholder-driven self-serve apps for tenants, occupants, technicians, etc., that capture the information without needing manual intervention of the operations teams.



## Omni-channel

A cloud-based platform empowers an omnichannel experience, allowing stakeholders to connect to the CMMS across browsers and mobile devices.



## Low-code

Need a custom workflow or a notification feature? Do it yourself with a low-code-enabled drag-and-drop interface. A robust CMMS platform eliminates the need for large technology teams to make simple changes to your product.



## Interoperability

The platform model, by design, is interoperable, enabled through APIs and IoT-based integrations. A modern Connected CMMS can connect with any number of external apps to orchestrate multiple functionalities through a single point.

## #5 Data-enabled transparency

### **Benchmarking, monitoring, performance evaluation and predictive analytics.**

What can't be seen can't be solved. What can't be foreseen can't be prevented. A modern, data-driven Connected CMMS will empower you to see your operations and foresee potential problems.

Some of the most useful insights property managers gain from a Connected CMMS are:

- Portfolio-wide view of overall operations.
- Granular metrics such as staffing gaps, sites with high compliance ratio and SLA adherence.
- Labor engagement by monitoring service request start time, resolution, and time taken to complete operation.
- 52-week PPM calendar in an easy-to-consume view.
- Trend graphs to see improvements in response times, time-to-completion, tenant feedback, etc.

Once we switched to Connected CMMS, all the data was in place for our technicians to see and act on. Not only were we able to provide quick resolutions, but also move from reactive to proactive maintenance by analyzing patterns in such requests.



**Hanie Abdul Sathar**

Director, Eurohealth Systems

MAKING THE RIGHT CHOICE

# Connected CMMS for game-changing operations

Some of the world's spearheading real estate and facilities management organizations are already driving business value from the Connected CMMS with Facilio.



When it comes to technology in real-estate, O&M teams aren't exactly spoilt for choice. Having to choose between legacy software and manual/point solution approach isn't the best way to set O&M teams for success.

**What needs to change is the idea of what a CMMS should do for you** and the approach to efficient, sustainable, and scalable O&M processes.

As O&M teams evolve into more strategic roles, it becomes imperative for them to adopt a Connected CMMS approach that connects their people, processes, and systems in meaningful ways to unlock portfolio-level efficiencies.

**This platform-powered connected approach is a tried and tested model that has revolutionized other industries for decades and has proved effective in solving complex enterprise needs.**

Salesforce paved the way for the on-demand movement across enterprise use cases using a similar approach. Another example is the ServiceNow revolution in the IT industry. There is no reason it won't bear similar outcomes for real estate O&M.



Change

Connected CMMS is a reimagined approach to property operations and maintenance that meaningfully connects your systems, people, and processes. One that expands the boundaries of CMMS beyond work orders and maintenance to automate processes, enable stakeholder engagement, and drive connected efficiency—all in one place.

Trusted by forward-thinking enterprises such as Investa and BritishLand, managing over 40 million sq ft of space globally, Facilio empowers real estate professionals with real-time operational visibility and complete control over their portfolios.

More info on how Facilio's customers are realizing time and cost-saving as well as operational efficiencies with our Connected CMMS platform: [Learn more](#)

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