



Connected Care:

How a Fully-Integrated CMMS
Helps Create and Maintain an
Exceptional Patient Experience



What is the patient experience, and why is it important?

Delivering a great experience for every patient is key to operating a premier healthcare organization, and healthcare technology management (HTM) and facilities teams can play key roles.

But of course, the patient experience isn't just one thing. It's a combination of several factors:

- Overall quality of care, including availability, safety, and effectiveness of medical devices.
- Experiences with the facility itself, including its condition, aesthetics, comfort, amenities, and its ability to deliver clinical outcomes.
- Human interactions with clinicians and staff.

Maintaining and improving all of these factors is crucial—not just for perception purposes—but for the organization's bottom line. In fact, just a 10% increase in the number of patients rating a hospital as “excellent” has been shown to increase profit margins by 1.5%.¹

That means a little extra attention to detail can have a big impact.



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Technology as a strategic advantage

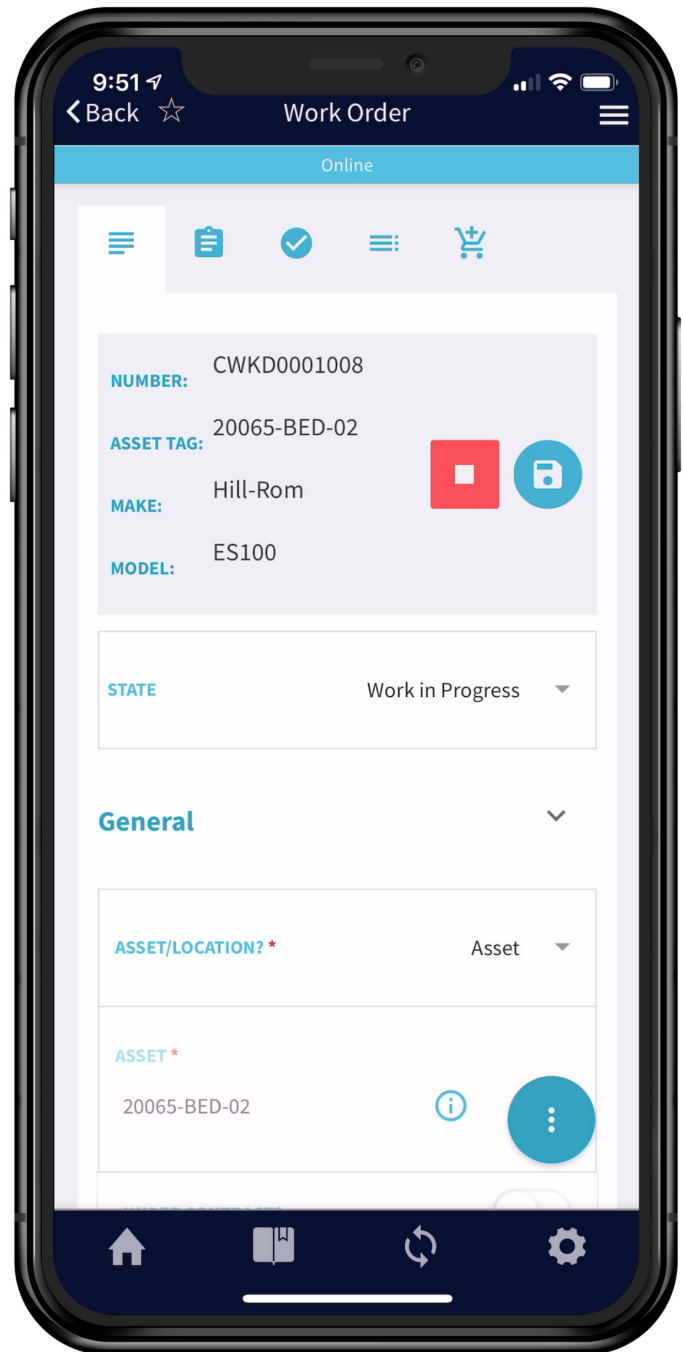
The industry is moving quickly to enhance patient outcomes and improve patient satisfaction. In fact, in a 2018 survey, 49% of healthcare provider executives said customer experience was a top strategic priority during the next five years.²

In this era of rapid innovation, it's up to HTM and facilities departments to stay ahead of the curve by finding new ways to utilize technology to enhance the overall patient experience.

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One of the most effective solutions is the implementation of a modern, fully connected Computerized Maintenance Management System, also known as a CMMS. Such a system enables every department—including HTM, IT, facilities, and others—to work and collaborate together more easily using the same portal and shared asset and work order database.

In the following pages, we'll look at five reasons why a CMMS like **Nuvolo Connected Workplace** can be a key driver of a consistently excellent patient experience.



1

Streamlining facilities operations and upkeep

Facilities management plays a primary role in supporting the patient experience. In fact, it's the bedrock of every process and procedure in a healthcare organization.

In addition to its importance for maintaining compliance across the board, facilities management also encompasses tasks such as:

- Inspection of HVAC, fire, refrigeration, and other crucial building systems
- Maintenance of the buildings themselves
- Planning for and managing new construction and renovation projects in coordination with other departments

Effective execution of these tasks requires a comprehensive and carefully organized facilities management effort. But with so many pieces moving around in real-time, it can be difficult to keep up with what's getting done and how it's being performed.

That's where a CMMS with a facilities management component like the Nuvolo Maintenance solution comes into play. It automates common workflows, generating and tracking work orders for everything from cleaning protocols to room temperature adjustments. It also knows exactly where to route each work order, identifying the correct department based on the type of device or procedure.

That means no more filling out time-intensive maintenance requests—and quite possibly eliminating hundreds of old spreadsheets in the process.



2

Protecting medical devices from cyber threats

Network-connected devices in healthcare facilities are at greater risk than ever. Hackers are constantly attempting to exploit healthcare network systems, and ransomware attacks are taking place against these systems at an increasing and alarming rate.

This includes not just information technology (IT) devices like computers, but also operational technology (OT) devices like medical equipment.

When a security threat occurs, the patient experience can be affected in a few major ways:

- Patient safety is compromised if a systems breach affects how the device operates. Anything connected to a network—from a heart rate monitor to a life-saving infusion pump—has the potential to be exploited.
- Patients' electronic protected health information (ePHI) may be placed at risk. Hackers who access information systems can obtain, sell, or leak their sensitive medical details.
- Downtime and delays may occur as security teams work to resolve the issue. This can create a backlog of all patient-related activities and increase wait times.

These types of events can create chaos as device owners and security teams scramble to remediate the issue. Disparate information about who owns which device, where it's located, and what software it's running can take hours to find and act upon.

The Nuvolo OT Security solution within Nuvolo Connected Workplace works to solve this in a few ways. First, it creates greater visibility by maintaining a real-time database of every device. It also integrates with industry-leading device monitoring and security tools, allowing it to accurately locate any threats and vulnerabilities. Finally, it auto-generates trackable work orders to the specific person or department with expertise for each impacted device.

This takes the guessing games out of security-related events, helping to quickly resolve issues that threaten patient safety, satisfaction, and hospital operations and finances.



3

Providing complete device inventory management

Most hospitals and health systems have thousands of devices to inventory and manage. In addition to network-connected devices like the ones we discussed on the previous page, there's also a plethora of non-connected devices that serve equally important purposes for staff and patients.

Each one of these devices—from surgical lighting fixtures to defibrillators to mechanical lifts—need to be properly managed and maintained in order to function as intended. Every device in the hospital has its own ongoing maintenance needs that must be scheduled and documented to ensure safety and regulatory compliance.

Today's devices are frequently part of a larger device system that require support from multiple departments. For example, an imaging system maintained by HTM may have cooling and power components maintained by facilities and also could be integrated with the hospital network, PACS, EMR, and clinical applications supported by IT.

That's why a CMMS like Nuvolo Connected Workplace can be incredibly helpful. It maintains a single device inventory for the entire enterprise. Anyone with access to the system can see where a device is located, when it needs maintenance, and what person or department is responsible for supporting each component.

This makes repairs, updates, and capital equipment planning much simpler. And when you're designing a top-notch patient experience, the extra visibility and foresight can make all the difference.

4

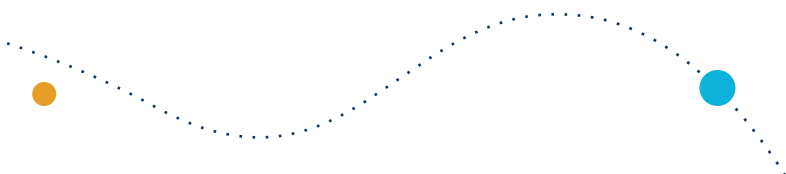
Assisting with equipment layout and space planning

A facility's physical layout is crucial to the patient experience and also a key part of enabling clinicians to do their jobs well. Every space in the building should be designed thoughtfully—and devices placed appropriately—with convenience and safety in mind.

This same spatial thinking should be applied to issues as sensitive as where to place waste disposal areas (which can present health hazards if not managed correctly) and as nominal as the inclusion of coffee and snack machines in waiting areas.

But of course, keeping up with the placement of every room and piece of equipment can be a tall task. That means space planners should have access to a system that allows them to visualize and configure the physical environment of the building as needed. Fortunately, a fully-connected CMMS can do just that.

Within the Nuvolo Space solution, color-coded floor maps display exactly where rooms and equipment are located, helping managers visualize and plan their space more effectively. They can also move or re-assign staff and devices to different parts of the building using a simple drag-and-drop tool. These capabilities make it far easier to understand and design spaces within a healthcare facility, especially when compared with spreadsheets and outdated legacy systems.



5

Enabling hospital project forecasting, planning, and coordination across multiple departments

Major capital improvement projects can be daunting from both a logistical and financial perspective—but they're also necessary for operating a safe, modern, and efficient healthcare organization.

These projects require consideration of multiple factors, including but not limited to:

- Design and construction costs
- Staffing needs during and after the project
- Equipment-related updates, moves, and purchases (including IT components for networking, digital storage, etc.)
- Any unforeseen expenses

This often means keeping up with a long list of financial line items while also managing timelines and vendor contracts. For this reason, healthcare project managers can be some of the busiest people in the entire organization.

That's why the Nuvolo Projects solution was built for them. It features detailed project analysis tools and capital planning capabilities, including the ability to track work across all the departments involved in a project. And since it's part of a fully connected CMMS, it gives every team the full picture in real-time, helping managers to stay on time and on-budget.



Built for Healthcare



A SINGLE INVENTORY
for every device.



AUTOMATED WORK ORDERS
to streamline facility and HTM operations.



SPACE MANAGEMENT
that makes planning and visualization simple.



MEDICAL DEVICE SECURITY
to ensure rapid threat and vulnerability remediation.



CAPITAL PLANNING
for efficient and timely project execution.

1. Deloitte, 2018 Global health care outlook

2. PwC, Customer experience in the New Health Economy: The data cure



**Want to know more about Nuvolo Connected
Workplace for Healthcare?**

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