



Orillia Soldiers' Memorial Hospital and GE HealthCare:

Redefining healthcare technology management to drive outcomes

INSIDE

- 2 Executive summary
- 3 From break/fix maintenance to healthcare technology management (HTM)
- 6 GE HealthCare's HTM model at Orillia Soldiers' Memorial Hospital
- 8 Improved mobile asset management
- 11 Key learnings

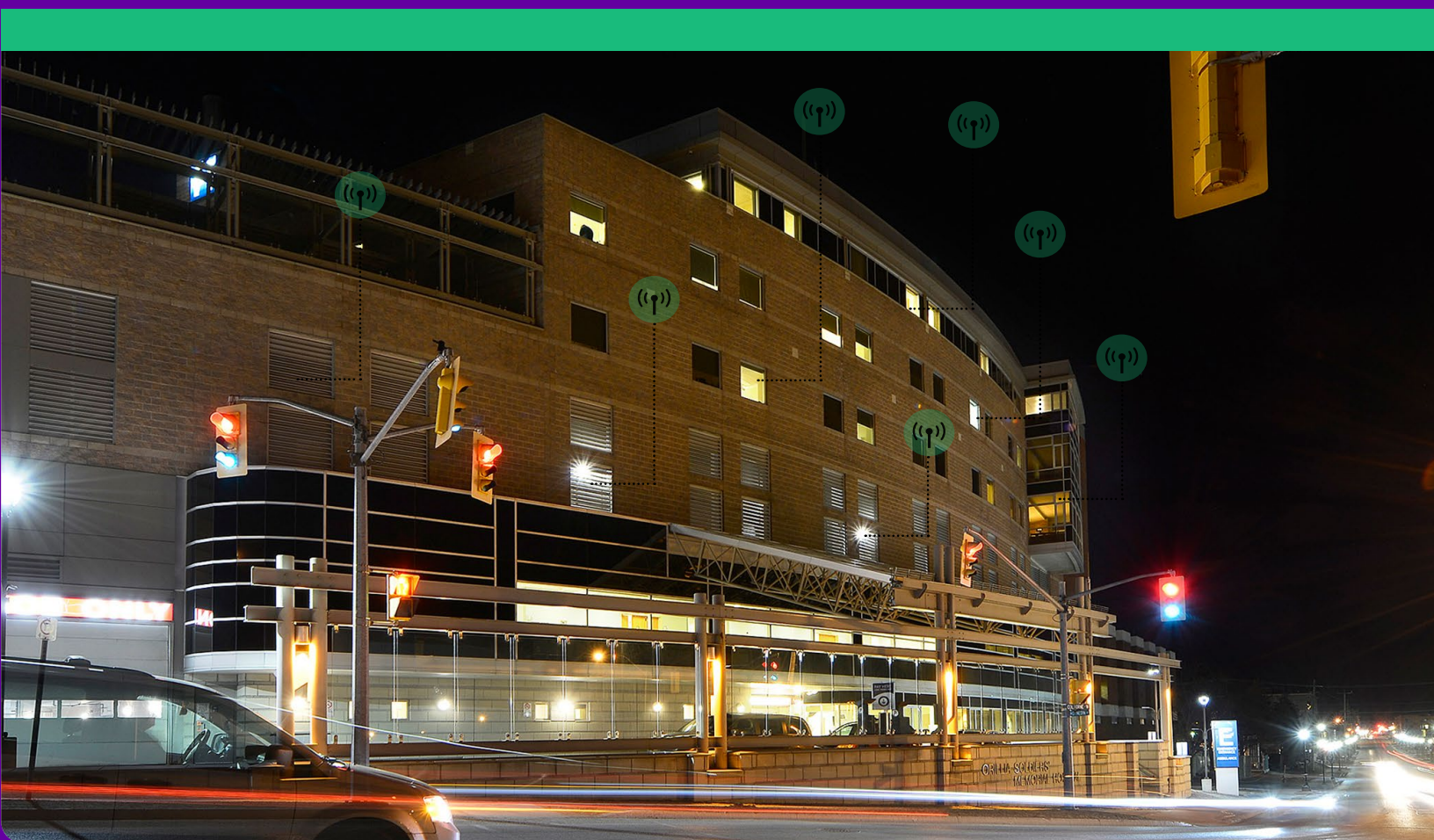
Executive summary

Orillia Soldiers' Memorial Hospital (OSMH) is on a mission to transform the Canadian healthcare system by optimizing workflow efficiencies, especially around asset management, with the primary goal of helping to improve patient care. GE HealthCare's long-standing collaboration with the hospital is helping it achieve that mission.

Over the past decade, GE HealthCare has repositioned its traditional biomed services to a Healthcare Technology Management (HTM)

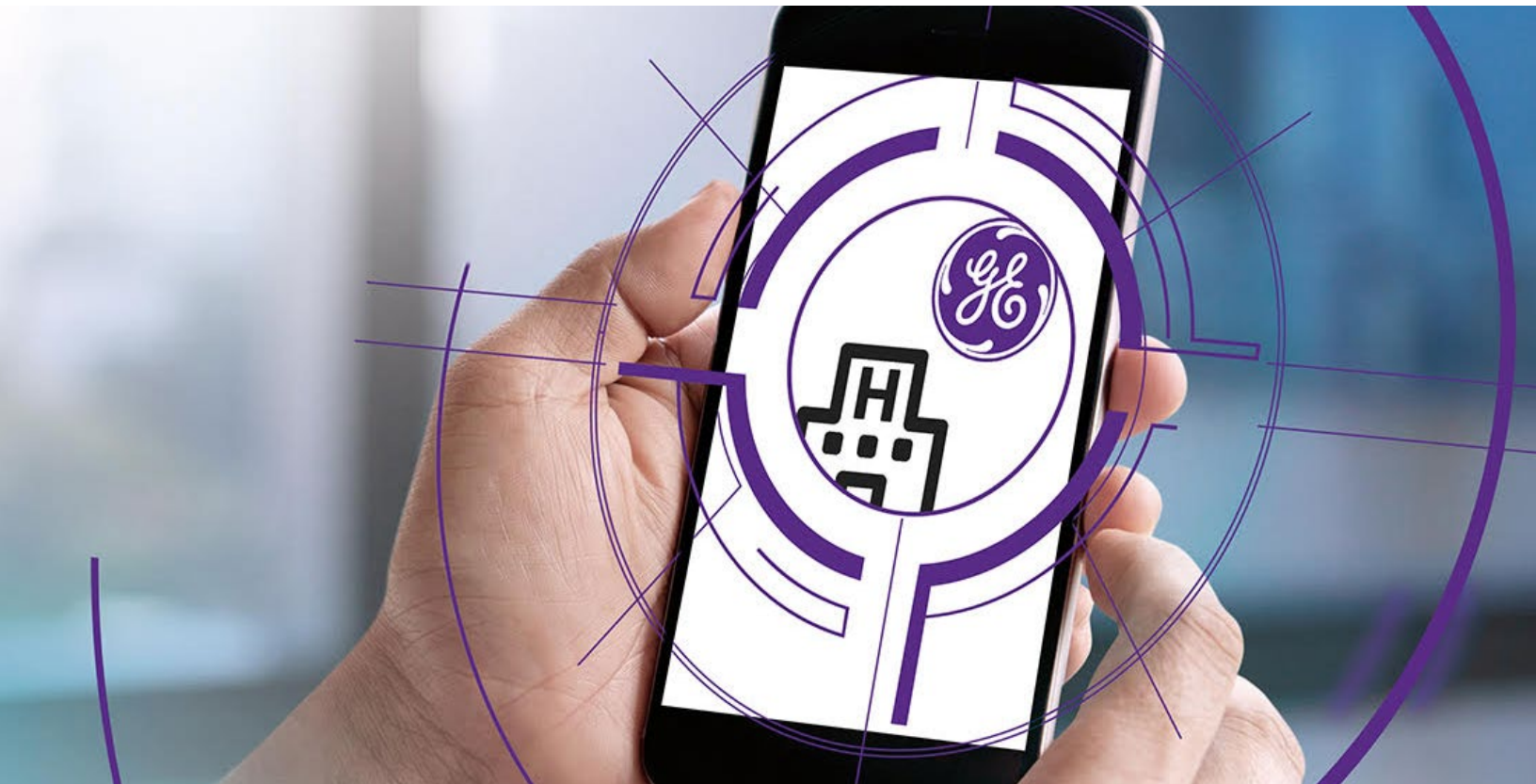
program. As part of this shift, OSMH has been using several GE HealthCare operational technologies, including a modern enterprise asset management system and a real-time location system (RTLS) known as Encompass.

Implementation of the HTM program at OSMH has led to improvements not just in patient care, but also in hospital efficiencies, clinical satisfaction, and financial gains.



About OSMH

Orillia Soldiers' Memorial Hospital is a 180-bed acute care hospital located in Orillia, Ontario, that serves the residents of North Simcoe Muskoka and beyond.



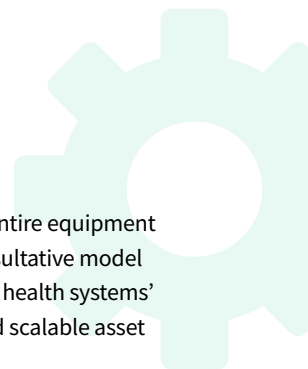
The evolution from break/fix maintenance to healthcare technology management

Traditionally, hospitals have purchased technology services from vendors through silos, with each department within the hospital doing its own thing, says Ron Rivard, Strategic Initiatives Manager (Ret.) at GE HealthCare. “Until recently, there hasn’t been an integrated approach to how a hospital’s assets are acquired, serviced, managed, optimized, and retired, and that would lead to various and system-wide inefficiencies and challenges,” he says.

That’s why GE HealthCare repositioned its biomed services model to a Healthcare Technology Management (HTM) program, which is

a more integrated approach that addresses the entire equipment lifecycle and technology infrastructure. This consultative model also enables GE HealthCare to better understand health systems’ challenges and deliver a portfolio of practical and scalable asset management solutions.

“Healthcare technology management is the cohesiveness that brings together four things: assets, meaning anything that a hospital care team utilizes; resources, meaning the people who actually use those assets; processes, the actions or steps taken to drive activities



across the health system; and technology, which creates efficiencies,” says Nancy Wright, Senior Director, Medical Technology Advanced Services GE HealthCare. “Traditionally, we would look at those four elements individually, but the job of HTM is to go across the continuum and look at efficiencies across assets, resources, processes, and technology.”

Wright says the shift to HTM was driven, in large part, by several market forces that have combined to make patient care more complicated than ever. “Your population is aging, your growth of costs per capita is always on the rise, there’s never enough resources from a human perspective to go around, and there’s always going to be a shortage of funding to be able to replace equipment.”

She adds that the Canadian healthcare landscape requires constant innovation in order to address those challenges. “HTM came out of an ongoing collaborative effort from the care systems in terms of them

saying, ‘We need more from you. We can’t meet our patient needs and our population is getting sicker.’ So, it came back to industry to say, ‘What can we innovate with? What do we need to do differently, to continue to complement the health system so that they can focus on patient care?’”



“Healthcare technology management is the cohesiveness that brings together assets, resources, processes, and technology.”

— Nancy Wright,
Senior Director, Medical Technology Advanced Services GE HealthCare

OSMH and GE HealthCare: A 40-year collaboration

1982

OSMH signs agreement with BESSI for biomedical services.

1999

GE HealthCare acquires BESSI.

2013

GE HealthCare signs a 5-year service agreement with OSMH and commits to lean 5S methodologies as part of its everyday activities.

All GE HealthCare biomed shops become certified to International Organization for Standardization (ISO) standards.

2018

OSMH commits to a multi-year extension of agreement.

GE HealthCare makes strategic decision to redevelop its biomedical services business and introduce new technologies and chooses OSMH as its pilot site for Canada.

OSMH expands relationship with GE HealthCare to include multi-vendor services for its imaging equipment, making GE HealthCare accountable for nearly all medical technologies in the hospital.

OSMH agrees to beta-test GE HealthCare’s new operational technologies.

2019

GE HealthCare expands services and implements modern enterprise Computerized Maintenance and Management System, giving OSMH an enterprise-level view of all its assets while allowing GE HealthCare to further optimize asset repairs for clinicians and patients.

2020

GE HealthCare introduces new platform technologies on which to build its new services.

GE HealthCare introduces new passive RFID smart label technology with integrated workflow to track assets.

2021

GE HealthCare’s real-time location system enabled by a customer success program (Encompass) goes live, giving OSMH enterprise-level tracking of all its mobile assets.

2022

GE HealthCare introduces the MyGEHealthCare portal to the Canadian market, giving OSMH a single portal into all its metrics, services, analytics, and data. This gives hospital leadership full visibility of all assets, including utilization metrics of strategic assets such as CTs.

Future projects

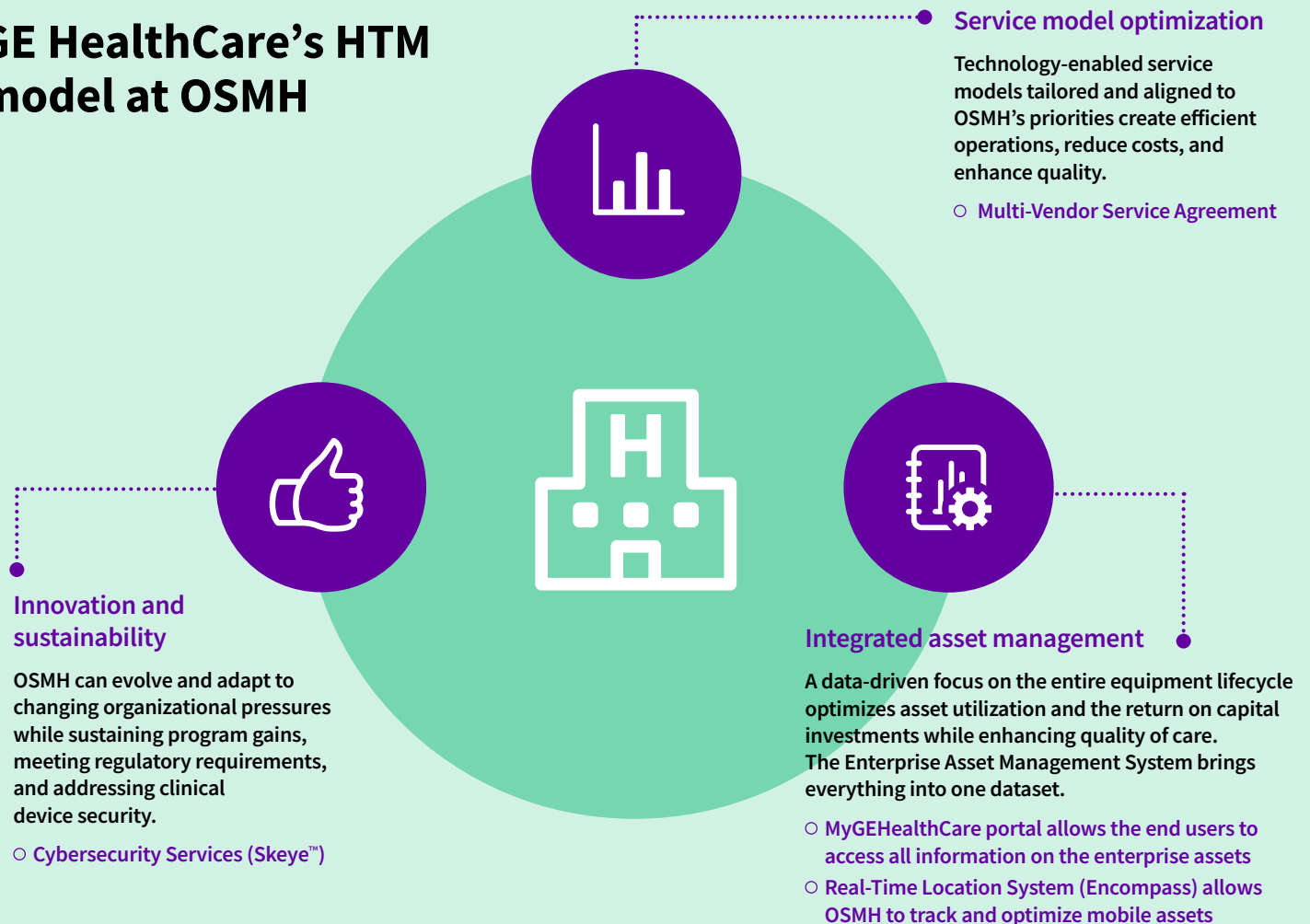
GE HealthCare and OSMH are exploring managed cybersecurity services (Skeye™) to support OSMH’s IT department with Internet of Medical Things (IoMT) cybersecurity concerns.

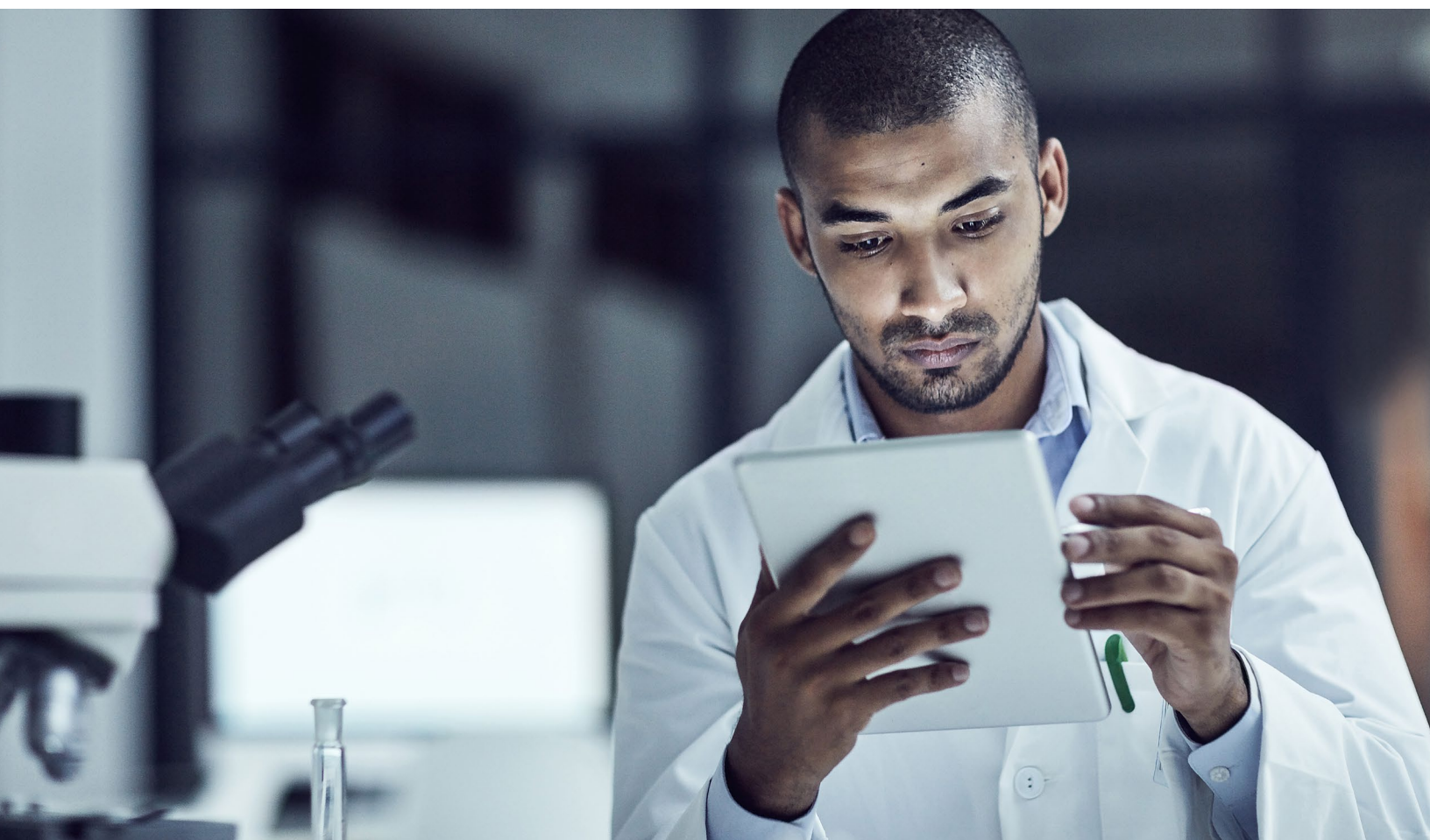
Focused on outcomes

With the shift to an HTM program, GE HealthCare has moved toward an outcome solutions-based model, says Brian McWilliams, GM, Canada, at GE HealthCare Patient Care Solutions, (formerly GM Commercial, Canada, at GE HealthCare Services). “What we’re doing is trying to deliver on what’s important for hospitals right now—this means challenges like, ‘How do you keep clinicians with your patients at the bedside more often?’ and ‘How do you save on operating costs?’ So, we’re focused on their priorities—patient throughput, patient satisfaction, financial responsibility, and we’re doing it with a high level of service in collaboration with the hospital.”

This emphasis on solutions and outcomes has become a big differentiator for GE HealthCare, McWilliams adds. “The companies we compete with provide a smaller basket of solutions that hospitals can then pick from. Whereas what we’re doing is understanding where the hospital’s pain points are, deciding what solutions within our basket may be able to help solve those particular problems, and continuously pushing boundaries to add newer solutions to our portfolio to ultimately help solve for hospitals’ biggest challenges.”

GE HealthCare’s HTM model at OSMH





Improvements with healthcare technology management

GE HealthCare's multi-vendor service agreement with OSMH, which covers both Diagnostic Imaging and Biomedical Services, has greatly improved efficiencies and simplified processes, says Jo-Anne Chandler, the hospital's Director of Materials Management.

"This is a big one for hospitals because we're complicated enough," she says. "Anytime we can make administrative or service-type processes easier, that's a huge benefit that trickles down and allows people to

focus on things that are life-impacting rather than on administrative hurdles that add on unnecessary frustrations."

Chandler adds that because the hospital is focused on clinical outcomes, OSMH looks at GE HealthCare's HTM as much more than just a technology service. "As we look to the future, we want to know how technology can enable some of these clinical outcomes, and how we are going to position ourselves to take advantage of that," she says.

“We rely on our vendor partners for their technical expertise and forward thinking, because sometimes they have insight into things that we’re not privy to or that are coming down the line. That kind of pre-knowledge and the relationship we have with our vendor is key,” Chandler says.

Better asset management delivers multiple benefits

For Kate Smith, Director of Diagnostic and Therapeutic Services at OSMH, one of the biggest wins with GE HealthCare’s modern enterprise

asset management system is accurate real-time equipment record management. OSMH has successfully implemented the AC Diagnostics ISO 15189 quality management system (QMS). “The asset management system allows us to manage multiple pieces of equipment while ensuring that we remain in compliance with the QMS and our external regulating bodies, and we have the evidence to support this in an easy to navigate application,” Smith says.

“For OSMH, trust is a key strategic priority,” Smith adds. “In Diagnostic Imaging, this means that our community has access to safe, high-quality imaging exams.”

According to Smith, there are several other benefits of GE HealthCare’s asset management system:

Reduced downtime

“Avoiding unplanned downtime whenever possible is critical, especially when it comes to CT and MR, because we don’t have a mitigation strategy. We have one machine, so we’re already booked out months for CT and MR. There’s no place to put those patients that we cancel due to downtime. For planned downtime, we can log in and see when the field service representative has scheduled a planned maintenance and move it if there’s another day when there is less impact to patients.”

Improved capital planning

“The consolidation of information all in one place can really fuel our capital discussions, especially regarding return on investment. Having the service information enables us to track the decline of the operation of the equipment, and then quantify the lower return on investment due to downtime.”

Expedited service

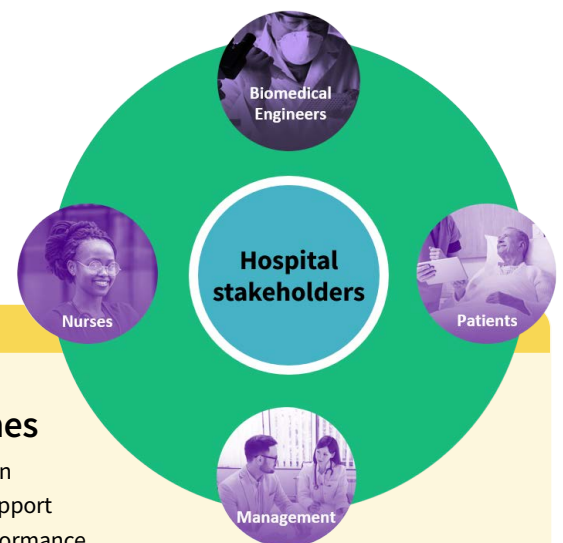
“If we have an ongoing issue, we’re able to log in and look at all the service reports. We have all this historical information at our fingertips. This helps us with troubleshooting and consolidates the conversation we have with the service people.”

Increased accountability

“Because we’re dealing with one contact person for all of our assets, when things go wrong, we know we can count on that one person to take care of things for us. The communication piece is really streamlined.”

HTM program can lead to several beneficial outcomes

- Help reduce costs
- Create single point of contact
- Help strengthen device security
- Help improve operations
- Enable smarter capital allocation
- Provide comprehensive OEM support
- Help deliver against set key performance indicators (KPIs)



Improved mobile asset management with real-time location system

Hospitals in Canada are challenged with the management of mobile medical assets. The current lack of standard asset management process and metrics is resulting in operational inefficiencies, which impacts patient care, clinical satisfaction, and the hospital's bottom line.

GE HealthCare's real-time location system (RTLS) technology is an innovative asset management solution that helps clinicians locate and monitor their mobile assets faster, so that less time is spent searching for mobile devices and more time is spent with the patient.

"Real-time location services have been around for a long time, but they were labour-intensive for hospitals to implement because they had to go into walls to install cables," says GE HealthCare's Brian McWilliams.

"Understanding that those were the barriers to implementing this valuable solution, we worked hard to overcome those challenges and provide a solution that can be implemented with minimal hospital IT involvement and infrastructure, and be up and running very quickly."

About GE HealthCare's RTLS solution at OSMH

The web-based, cloud deployed, real-time location system (RTLS) is used to track, manage, and analyze location data for the hospital's mobile assets. Approximately 800 microchipped assets tagged with beacons are tracked by a series of beacons stationed throughout the hospital, enabling staff to pinpoint the location of items that are constantly moving around the facility as they are needed.

The system is designed to be used with smartphones, tablets, and desktop computers, providing up-to-the-moment data wherever a clinician or other hospital staff member is in the hospital. It also gives hospital administration an accurate accounting of inventory and utilization, preventing procurement of new equipment if current supplies are adequate and underutilized.



The benefits of improved mobile asset management

GE HealthCare's RTLS solution has led to several beneficial outcomes for OSMH, including improved patient and employee satisfaction and improved capital allocation.

Improved clinical satisfaction

"The number-one benefit has been the visibility of our assets. We've gone from a state of high-level knowing what we had, but not knowing where it was. The visibility of knowing where our equipment is, across the whole organization, has been a huge benefit," says OSMH's Jo-Anne Chandler.

At a time when resources are stretched thin and staff burnout is at record levels, the RTLS technology helps reduce stress levels by eliminating time spent searching for equipment so clinicians can spend more time at the bedside.

Better bottom line

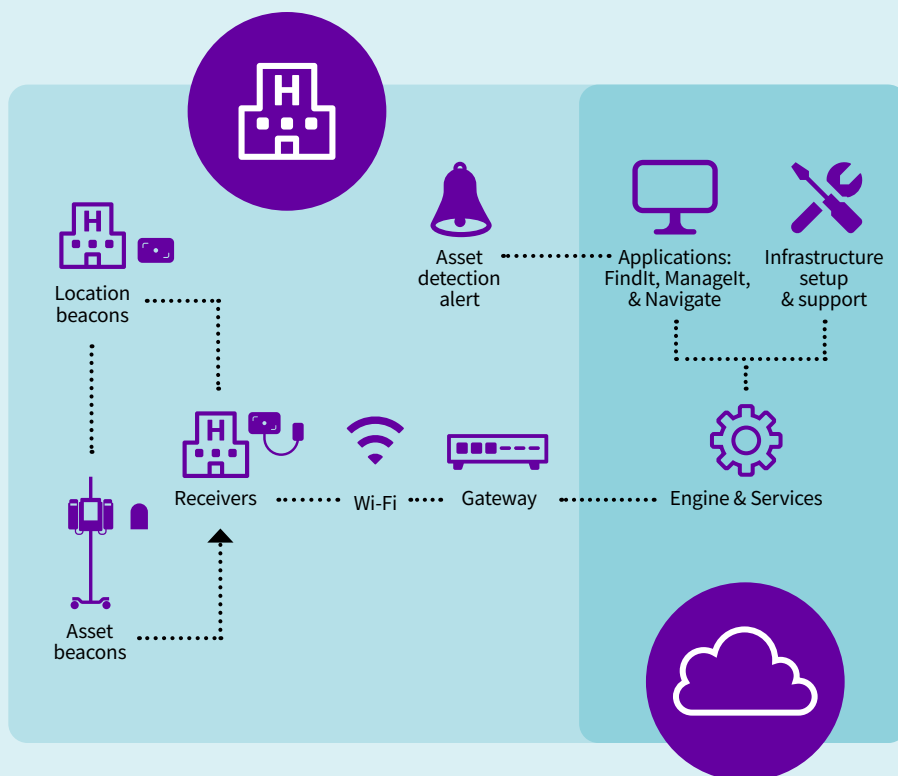
"What we cannot afford in healthcare is to be purchasing additional items just to have them sit idly," says Tom Roberts, OSMH's Chief Financial Officer and Executive Vice President of Corporate Services. "The RTLS identifies what assets aren't being utilized or have additional capacity, which allows us to defer buying new items by optimizing the use of existing ones."

Better patient experience

When clinicians locate equipment more quickly, that means patients and their family members don't have to wait as long for tests or other procedures and can spend more time with clinicians. Not having to wait also helps reduce patients' stress and anxiety.

Streamlined certificate push

One example of how the RTLS has improved productivity involves the certificate push that's required for all IV pumps every two years. If certificates are not updated on schedule, they time out and are unusable. Before the implementation of the RTLS, biomed staff would take one full day walking through the floors to locate and check all IV pumps. Now, they can find all IV pumps that require certification update in under one minute. This ensures there's no downtime for the pumps, and they remain always available for the clinical teams.



The impact of a missing wheelchair

Before the implementation of the RTLS, staff members would typically spend **20 minutes** a few times a day locating wheelchairs to transfer patients to appointments. Now, they can find various wheelchair types within a **few minutes**, which means patients can arrive at their appointments on time.

“You cannot underestimate the value of being able to locate a wheelchair in a timely manner,” says OSMH’s Kate Smith. “In the past, patients would be dropped off at our front door and they would often wait a long time for a wheelchair. And so, then they’ve registered late, they’ve arrived late for their table time, and then that bumps the

whole day’s schedule. Not only does it impact staff, but it also sends a message to the patient that they’re different and it may create a feeling of disparity.”

Before:



20 minutes

After:



A few minutes



“What we’re doing is understanding where the hospital’s pain points are, deciding what solutions within our basket may be able to help solve those particular problems, and continuously pushing boundaries to add newer solutions to our portfolio.”

— Brian McWilliams,
GM, Canada, at GE HealthCare Patient Care Solutions,
(formerly GM Commercial, Canada, at GE HealthCare Services)

GE HealthCare's learnings

Nancy Wright, Senior Director, Medical Technology Advanced Services GE HealthCare, pointed to three key learnings from the implementation of the HTM program at OSMH:

01

The impact on frontline care teams

"As a service organization, we're used to performing best in class from a service reliability and quality perspective. This is ingrained in our culture. But when we moved into the HTM space and really started to push that boundary by bringing in these innovations, we started to see just how much this technology has positively impacted the frontline care teams. At first, we just saw the statistics, which are very tangible. But then we sat across the table from these care teams, and they explained to us how beneficial this technology was for them and how it had changed the way that they were able to work. I really don't think we factored in how beneficial this technology was going to be for clinicians."

02

The greater role technology will play going forward

"The scarcity of resources in Canadian healthcare today isn't going away. Surgeries are backlogged. Imaging is backlogged. There are nursing and personal support worker shortages, as well as others. There really isn't any area that is untouched, and it's going to take several years to recover from it. The learning for us is just how big a role our technology is going to play in the reset that is needed in the healthcare space. We've figured out the right mix across assets, resources, processes, and technologies, and there's a big knowledge base with our people, which is a differentiator. Our technology is going to help care teams figure out how to have less wasted time and fewer roadblocks."

03

The importance of personal relationships

"While the pillars of HTM are assets, resources, processes, and technology, we really need to emphasize the importance of people. You can have the slickest, smartest software out there on the market, but you also need subject matter experts on-site who can look at problems across clinical workflows, for instance, and understand what to do with those assets, and how to help those frontline resources. While HTM is a big revolution from a technology perspective, it's still going to be about the people who are behind it, in terms of leveraging it for the right teams at the right times in the right places."



GE HealthCare's HTM program is available to other healthcare organizations across Canada so that they can accelerate their journey on this industry transformation and ultimately enable the delivery of the best care for patients. For more information, [click here](#).