



PHILIPS

Partnership

Managed Services

Partner to equip the smart hospital of the future

Philips Managed Services at Mackenzie Health, Canada

Who

Mackenzie Health, Canada

Challenge

Support Mackenzie Health's transformation into a two-hospital provider by optimizing inter-connected state of the art medical equipment and technology, to help improve healthcare for over half a million patients in the region.

Solution

An 18-year partnership to equip and advance Mackenzie Health's medical technology procurement and maintenance programs for the existing Mackenzie Richmond Hill Hospital and the new Mackenzie Vaughan Hospital – Canada's first smart hospital. Embracing connected health technologies to offer an advanced emergency department, modern surgical services and operating rooms, access to acute inpatient and intensive care beds, technologically-advanced medical imaging, specialized ambulatory clinics and a flexible design, enabling it to evolve as new thinking and best practices emerge. While Philips acts as a procurement arm for medical devices, strong governance allows Mackenzie Health to maintain control in the evaluation of suppliers allowing for clinical freedom of choice.

Mackenzie Health is a dynamic regional healthcare provider serving a population of more than half a million people across York Region and beyond, and is nationally recognized for its commitment to safety and quality patient care. With a goal to advance their smart hospital vision, Mackenzie Health and Philips have partnered in a comprehensive managed services agreement that will enable expanded access to quality care and improve patient care in the community.

A comprehensive partnership

Strategic partnership includes:

- Procurement, installation and system integration (managing over 2300+ pieces of equipment).
- Clinical training, asset management, parts logistics, back up equipment, maintenance, and technology updates.
- Higher predictability and strategic decision-making to ensure the right technology is available to provide quality care, delivered through an equipment replacement plan.
- Uptime guarantee on system availability to enable patient throughput. Commitment to elevated key performance indicators around maintenance of technology and software upgrades.
- Enable clinicians to stay up-to-date with the latest techniques and deliver excellent care through an on-going clinical education program.
- Philips will serve as advisor during the design and construction phase of the Mackenzie Vaughan Hospital as it relates to medical devices and services. This includes guidance on workflow design and planning for equipment staging, installation and commissioning.

Results after 3 years of partnership*



60%
Of the medical
devices are non-
Philips addressable
(3rd party)



99.9%
system availability
(uptime)



9 out of 10
Customer rating



< 4 hour
Rectification

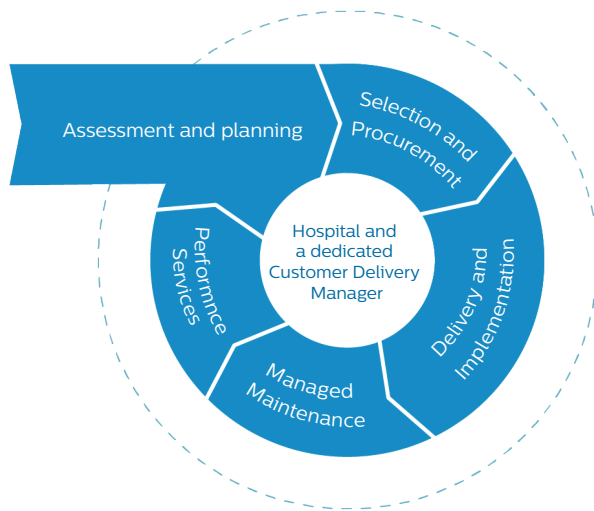
* More than 2x faster response time vs baseline

Achieving success through an outcome-based **technology management partnership**

The cost, unpredictability and complexity of maintaining and optimizing healthcare technology from multiple vendors poses significant challenges. Philips Managed Technology Services is our comprehensive, outcomebased approach to the management of your healthcare technology for reduced downtime, immediate response, a predictable unitary payment and one touch point managing multiple vendors. Managed Technology Services includes equipment procurement, installation, management and upgrades.

How our Managed Technology Services works

Through a shared risk and reward partnership, Philips Managed Technology Services delivers technical, operational and financial transformation to drive positive change. Engagements are tailored to the Hospital's needs and goals, offering a uniquely versatile and flexible opportunity for technical and operational efficiency.



Our Managed Technology Services portfolio includes

- Creation and management of a multi-year investment and maintenance plan. Based on your operational and clinical needs, your plan will utilize actual and benchmarked data to secure access to the right technology and usage. Your plan will be reviewed and updated annually to verify it reflects your needs as well as the latest insights and technological developments.
- Replacement and update of technology with minimal disruption to clinical work flow.
- Exceptional multi-vendor maintenance solutions with a proven track record of driving cohesive day-to-day operations, streamlining and optimizing maintenance and maximizing equipment availability.
- Program management and support via dedicated on-site staff seamlessly collaborate with key stakeholders to deliver on the agreement and provide insights on continuous improvement. Our strong global network provides decades of experience to draw from and the ability to leverage buying power.
- Creation of a transparent financial model to realize your investment plan. Structured financial propositions are an integral part of any Managed Service partnership. Propositions are designed to fit the unique needs and budget of each hospital, enabling a predictable and stable cash flow to support the realization of investment plans.

One team approach

Our teams work transparently, flexibly and collaboratively, acting as an extension of your team to assess and identify challenges, priorities and define a realistic action plan. You will gain immediate insights drawn from our proven track record in Managed Service alliances to enable technical/operational efficiencies and more confident investment. All equipment recommendations are vendor neutral and we respect - and enable you - to retain complete control over all key decisions.



The Philips-Mackenzie Health partnership model for transforming care delivery.

Creating integrated solutions for today's and tomorrow's healthcare challenges.

- **Broad-based technology management**

As Mackenzie Health's prime medical technology partner, Philips will supply (or procure) and manage a broad range of equipment that will be used across all major departments at the Mackenzie Richmond Hill Hospital and the future Mackenzie Vaughan Hospital. We will support the hospitals' equipment needs throughout the entire contract lifetime, including ownership, provision, purchase, installation, user training, asset management, maintenance and ongoing replacement.

- **Patient-centered care solutions**

Mackenzie Health will benefit from ongoing access to the latest Philips healthcare technology innovations as well as Philips' expertise in patient-centric design.


- **Design and planning guidance**

Philips will serve as an advisor during the design and construction phase of Mackenzie Vaughan Hospital as it relates to equipment and services. This includes guidance on workflow design and planning for equipment staging, installation and commissioning.

- **Dedicated support and management staff**

Philips will provide a dedicated team to marry seamlessly with your organization and support your clinical, technical, IT integration and interoperability, procurement, and construction needs.

These are this facility's results and may not be typical for other systems or programs



"The flexible payment model makes costs of the procurement and maintenance of the equipment more predictable and enables us to better manage annual costs".

- Terry Villella, Vice President, Finance & Chief Financial Officer at Mackenzie Health



Our joined commitment to prioritize patient throughput with optimized uptime:

Understanding that in order to prioritize patient throughput, hospitals in general need to have the highest level of uptime on their equipment. With Mackenzie Health, we have been able to meet and exceed 99% uptime on all medical devices, which are under the contract.

Where our standard contracts measure uptime on the equipment aggregated during only the hours of the contract, the uptime at Mackenzie Health is measured on each line item of equipment during their core hours of operation. In the three years that we have been servicing Mackenzie Health, we have maintained an average uptime of greater than 99%, and more importantly, we have been able to provide an average rectification time of less than 2.5 hours.

This is possible due to our dedicated onsite staff, relationship with 3rd party vendors, backup devices and expedited parts availability.



Smarter equipment planning with an onsite customer delivery manager

Philips has entered into this partnership at an early stage of the project and has been able to support the architects by providing specifications for room design on the equipment being procured. In 2015, Mackenzie Health was able to design the rooms of the future hospital according to the 2020 specs of all the equipment being procured. This was very reassuring for the Hospital management team.

There are four steps to the typical successful Managed Service partnership:

- 1. Technology inventory** – An inventory report showing the status of all currently installed healthcare technology.
- 2. Technology assessment** – Based on the technology inventory report, a technology 'health check' includes life of equipment, usage intensity, and service history (compared to industry benchmarks).
- 3. Establishment of a plan** – A flexible, multi-vendor, multiyear technology investment and maintenance plan.
- 4. Periodic review** – Ongoing review to deliver an unbiased overview of the actual status and performance of the healthcare technology at a point in time.



Accessing the right technology at the right time while reducing the Total Cost of Ownership

To begin the partnership correctly, an enterprise-wide technology assessment is conducted. This results in a flexible, multi-year technology maintenance plan designed with continuous updating and improvements in mind. As part of this plan, input from multiple stakeholders, as well as data insights on equipment usage, utilization, and future demand projections, combine to form an equipment replacement plan. This equipment replacement plan enables data driven technology investment decisions based on operational and clinical needs, in order to secure access to the right technology at the right time.

The onsite customer delivery manager assesses the need and the type of equipment required to create /adjust the output based specification. In collaboration with the global Philips team, this role ensures that the solution fits the clinical needs. Our data and remote capture of equipment usage enabled us to provide detailed reporting indicating that the CT at the Mackenzie Richmond Hill Hospital has the highest utilization in Canada. We were able to advise the configuration, training, and maintenance to save Mackenzie Health money and ensure that they have the right equipment, training, and support to provide the highest level of patient throughput.

Philips was able to share new technology advancements (R&D) with Mackenzie Health so that they were aware of future innovations. This allows that their clinical requirements are taken into consideration. Without the Managed Service partnership, this would not have been possible.

“At Mackenzie Health patients are at the heart of everything we do. With Philips as our partner we know that we will not only be able to improve the quality and efficiency of care but also enhance the patient experience”.

– Altaf Stationwala, President & CEO at Mackenzie Health

The importance of interoperability and AI between systems and departments

The Managed Services partnership between Philips and Mackenzie Health focuses on innovation, highlighting the importance of Interoperability as well as Artificial Intelligence. Through this collaboration, users and clinical teams are enjoying real time reporting and analysis with easy to use technology. In addition to enabling interoperability between devices within the various hospital rooms, Philips has been able to provide additional value by introducing new and innovative technology for example:

- In 2018, Mackenzie Health decided to implement a new Philips DCP solution complete with Image Management System and Frozen Section scanners that would be fully interfacing with EPIC Beaker Electronic Medical Record (EMR) module. It is a full digital clinical workflow that allows Mackenzie Health lab users and Pathologists to support two sites centrally with efficiency and accuracy.
- In 2019, the hospital decided to implement the Philips Illumeo Adaptive Intelligence PACS solution complete with IntelliSpace Enterprise Imaging applications. The new Philips PACS Solution allows radiologists to generate accurate and structured reports with all measurements and data auto populated and transferred directly from multiple modalities unconstrained by locations or manufacturing. This innovation technology platform connects patient, care teams and data across Mackenzie Health sites.
- In 2019, Philips and Mackenzie Health, through the partnership, started an organization wide EMR integration project by introducing the latest release of Philips IntelliBridge Enterprise Interoperability Solution version B.11. This is a single standards-based point of integration in MH between Managed Service Medical Equipment & EPIC EMR to transfer the data between devices and documentation in real time.



“Hospitals are complex organizations, which are challenged to deliver excellent healthcare within a limited budget. We chose to collaborate with Philips for their knowledge of workflows in the hospital environment as well as the expertise in medical technology optimization, training, maintenance, IT integration and data analytics. Their ability to work with us as an early advisor in the design and strategic planning process of our smart hospital vision is what set them apart”.

- Richard Tam, EVP & CAO at Mackenzie Health



Philips is committed to building **sustainable partnerships addressing the quadruple aim**



Simplifying
data and insight
gathering



Removing
excess costs



Driving improved
treatment and
outcomes



Giving patients
and staff a better
experience



Disclaimers:

- * Results from case studies are not predictive of results in other cases. Results in other cases may vary.
- * Uptime measured over period of 4 years, NPS measured over 2018.
- * Average on-site response time is 12 minutes compared to KPI agreed to in contract for emergency of 30 minutes.
- * Architectural rendering reflecting current design concepts for the new Mackenzie Vaughan Hospital.
Exterior colors and finishes may change with final design.

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