

Appendix A: Disguised Platform Document¹

The Platform (PT™) acts as the “brain and nervous system” of any hospital or healthcare facility. It provides a unified platform for:

- Sensing
- Actuation
- Multi-level distributed real-time and near-real-time control
- Near-real-time data distribution (Healthcare Service Bus)
- Data persistence
- Data analytics
- Application services leveraging the above

This enables healthcare facilities to be managed, monitored, and optimized. Clinical, operational, and environmental sustainability is maximized through:

- Lowering the cost of applying intelligence to hospital systems and medical devices
- Closely monitoring and optimizing patient care and hospital performance
- Increasing the utility of sensors, networks, and medical infrastructure through integration, reuse, and enabling applications to improve access to information and control capabilities across the hospital
- Thoughtful use and application of both embedded and cloud technologies

The Platform is fed information from an integrated sensor network embedded into every part and function of the hospital. Data is combined and aggregated, analyzed and inspected to derive knowledge and insight into hospital functionality and dynamics. This combination of distributed sensing and processing with centralized command and control allows for efficient hospital management and optimized operations.

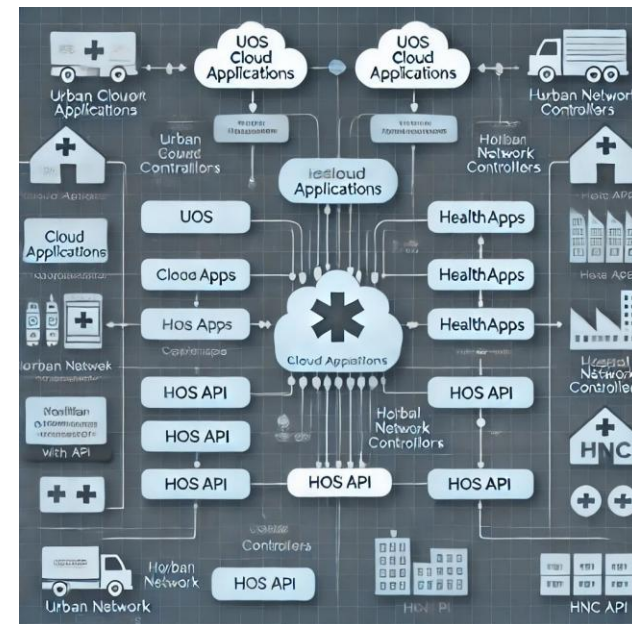
The Platform allows hospitals to collect data on everything happening in the facility and retain this information indefinitely. Not only does this help the hospital respond in real time to medical situations, but it also enables the continuous optimization of all hospital functions, giving the Platform the

ability to predict the outcomes of certain events. Examples include patient flow management, climate and energy management, and equipment automation.

Broadly speaking, the PT™ architecture can be thought of as comprising the following layers:

- Sensor Network
- uCloud Compute Platform
- PT™ Core
- PT™ API
- PT™ Applications

This diagram of the Platform Architecture illustrates these layers in more detail:



¹ To generate this document, we uploaded an official Enterprise document into OpenAI's ChatGPT4o with the following prompt: "Please disguise this document by

rewording its content, and changing its industry from X to Internet of Medical Things."

Sensor Network

The use of “smart” sensors – IP-addressable sensors that can talk directly to the network – enables both new and existing hospital networks to be used, creating richer systems and improving efficiency in energy and bandwidth terms. Some sensors will even power themselves by harvesting energy from the environment, such as light, pressure, or heat.

PT™ integrates hospital network controllers to manage and react to incoming sensor data. This puts control at the closest point possible to the systems being controlled while still providing a standardized layer for managing and operating medical sensor networks.

A consistent, managed layer of sensing and actuating devices allows for reuse of these resources through the PT™ by a large range of healthcare applications. For example, a sensor that monitors room temperature can also be used for patient safety, or a vibration sensor that detects movement can be used for tracking medical staff.

Compute Platform

The PT™ uCloud Compute Platform leverages technology to provide tethered private clouds. The platform can be managed as a whole, with the distribution of functions optimized to suit the needs of the hospital, providing redundancy and flexibility.

PT™ Core

The PT™ Core provides data routing, marshalling, aggregation, lifecycle management, and analytics. It acts as a combination of a “hospital service bus” and a “hospital data warehouse.” This simplifies and optimizes the flow of information around the hospital and beyond, enabling data integration with reduced programming and maintenance effort. The PT™ Core is also a key integration point for external services such as remote medical devices or cloud-sourced capacity.

PT™ API

This layer provides the value-add of PT™ to HealthApps. A tiered set of services provides everything from low-level access to data, sensors, and actuators to vertically specific services. A single coherent API based on web services allows software developers to leverage real-time and historic data, analytics, and interact with hospital controls in near-real time.

PT™ Applications

These services simplify the building and deployment of HealthApps. Applications are easy to build, test, and use, benefiting patients, hospital staff, and administrators. Developers gain access to new revenue streams, and healthcare partners can quickly and cheaply try out new ideas