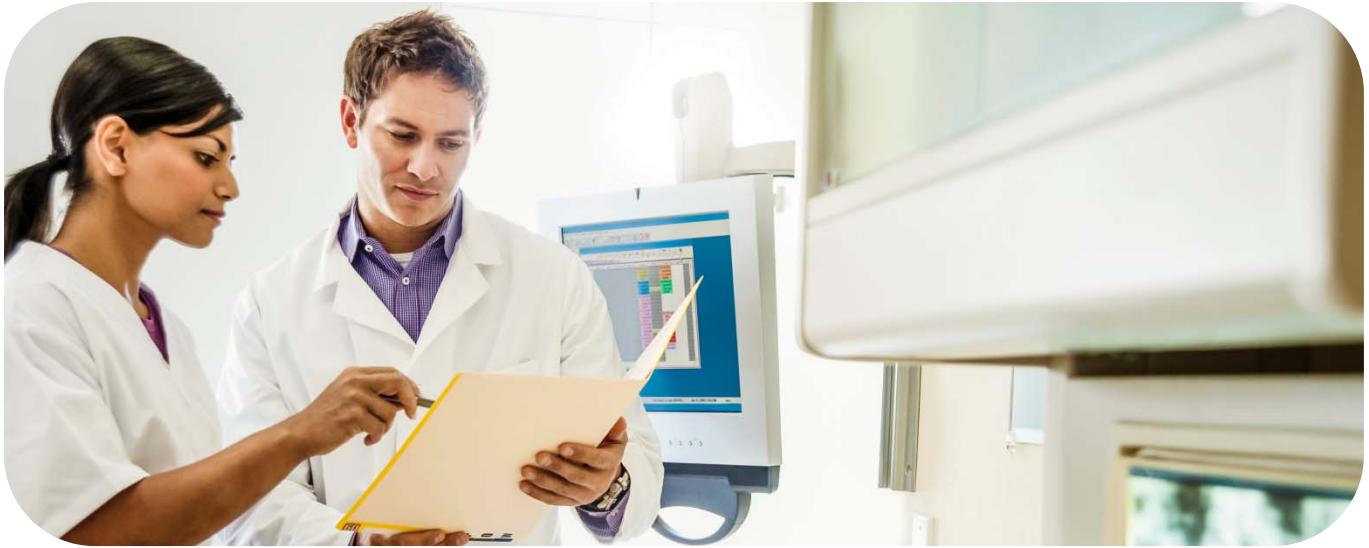


# Clinical Environment Optimization



Harness the benefits of **interoperability** between clinical systems and facility systems. Use commonly available data to make hospital facilities more **efficient**, **productive** and **sustainable**.

The Clinical Environment Optimization solution is a middleware application used to integrate a hospital's clinical infrastructure to its facility infrastructure. The middleware solution determines the occupancy status of patient areas and provides information to the BMS through open-protocol interface. Healthcare organizations can use Clinical Environment Optimization to deliver business value in three key ways.

## Save Energy

Hospitals continuously run rooms at occupied settings, even when unoccupied. Whether in a patient room, operating theater, or other key area, adjustments are made based on occupancy/use.

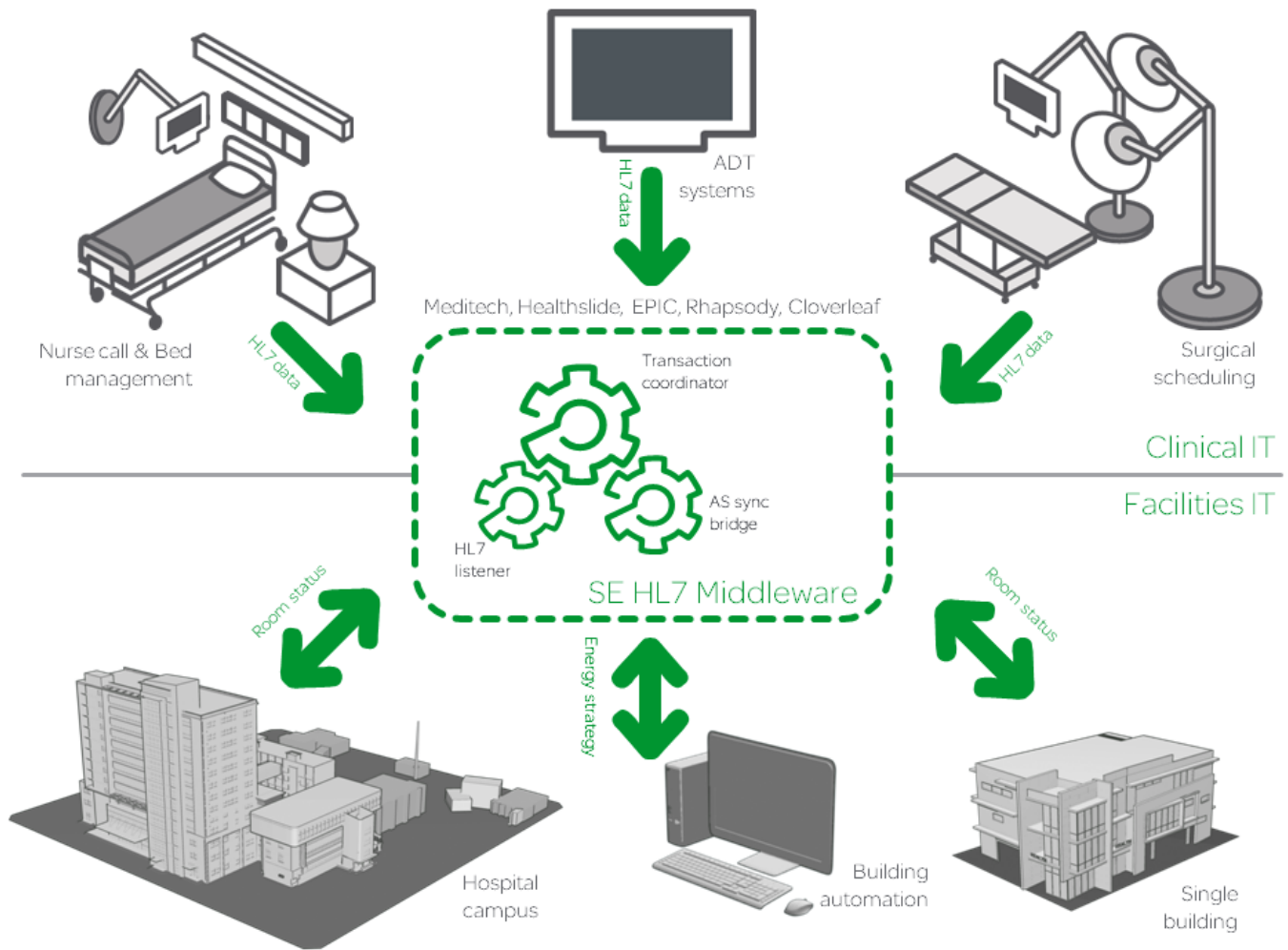
## Improve Staff Productivity

Maintenance staff gains productivity by knowing when they can schedule work in patient rooms and operating theaters while the clinical staff can focus on patient care.

## Improve Patient Satisfaction

Patients can feel assured that their environmental conditions are always set and operating as required to make a comfortable and healing environment.

# Solution architecture



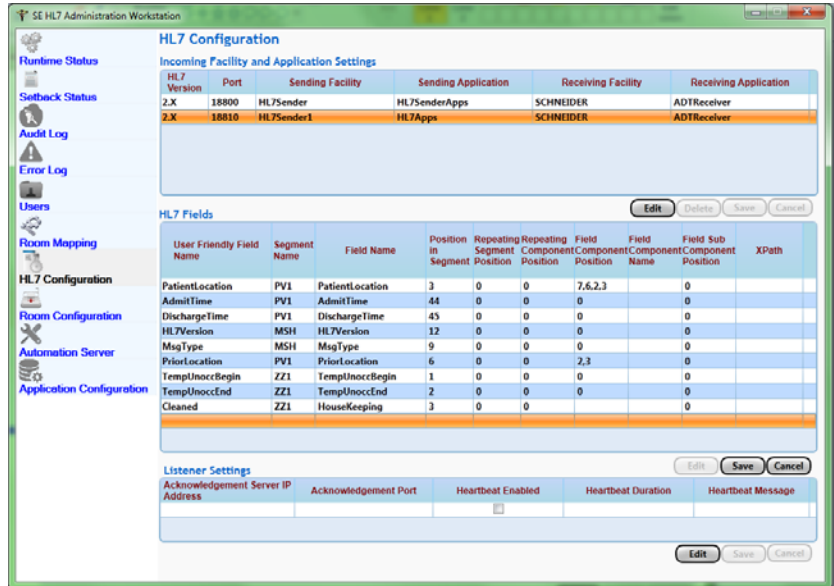
## Designed to help hospitals

- Handle single and multi occupancy rooms with the support of 4 different occupancy modes.
- Allow multiple HL7 data sources to be connected to the system.
- Provide easy to use HL7 configuration tool for Level II standard and custom message support
- Guarantee patient comfort through fail-safe features and local overrides.
- Provide flexible energy profiles for different departments or physical areas of the hospital
- Comply with HIPAA privacy standards as no patient specific information is retained.
- Provide comprehensive system audit logs as well as reporting on hours in setback mode
- Support for single buildings, campuses or large enterprise-level healthcare networks
- Supports Schneider Electric BMS and third party BMS system via BACnet, LONworks and Modbus protocols

# Simple configuration

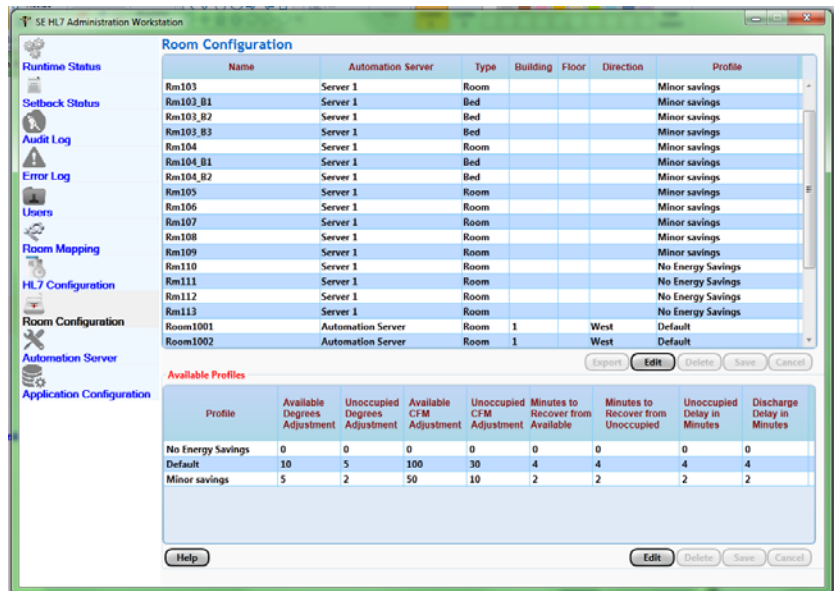
## HL7 configuration

Allows operators to access multiple streams of HL7 data for use in the energy management application. Also supports Level II and custom messaging.



## Room configuration

Allows support of various room types and spatial functions within a healthcare facility. Operators have the flexibility to adjust temperature and ventilation rate setbacks per room, or globally.



# Specifications

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## Hardware requirements

Processor .....Minimum: 1.0 GHz  
.....Recommended: 2.0 GHz or higher  
Memory .....Minimum: 2 GB  
.....Recommended: 4 GB or higher  
Hard Disk .....Minimum: 20 GB  
Drive .....DVD drive  
Other devices .....Microsoft mouse or compatible pointing device is required

## Software requirements

Operating systems ..... Microsoft Windows 7 (32-bit)  
.....Microsoft Windows 7 (64-bit)  
.....Microsoft Windows Server 2012, 2014 or 2016(64-bit)  
Database.....Microsoft SQL Server 2012, 2014 or 2016, SQL Express 2012  
Required additional software .....Microsoft .NET Framework 4 Client Profile with update KB2468871

## Communication

Protocol .....HL7 Version 2.x (V2)  
SQL ..... TCP Default 1433  
HL7 Messages ..... TCP Port Configurable  
EcoStruxure Web Services..... TCP Port 80



### Three tiers of licensing per install:

- **Tier 1:** 100 rooms or less
- **Tier 2:** up to 500 rooms
- **Tier 3:** unlimited rooms

For more information and pricing contact:  
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