

CASECONNECT®

DIGITAL SOLUTIONS

SMART IoT SENSORS



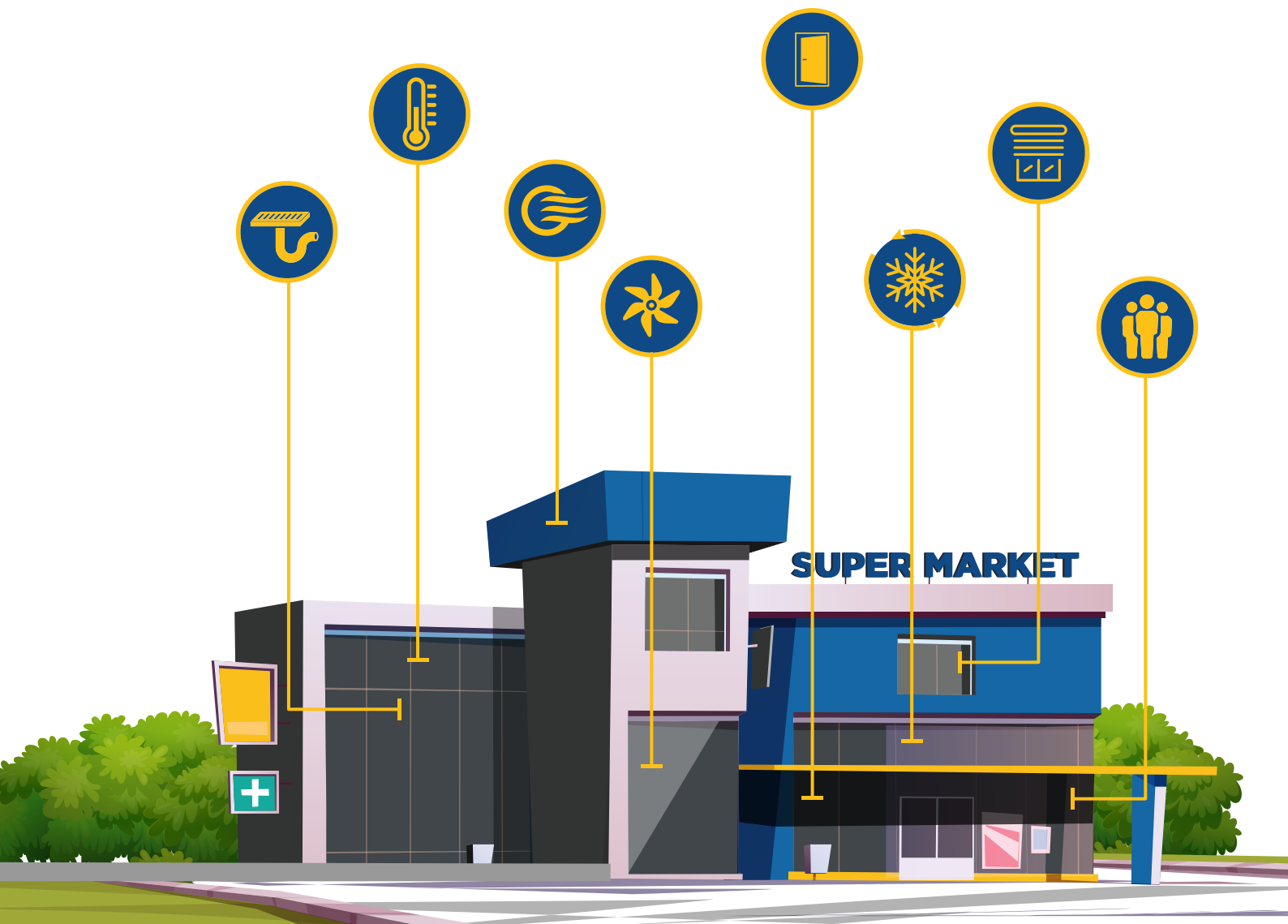
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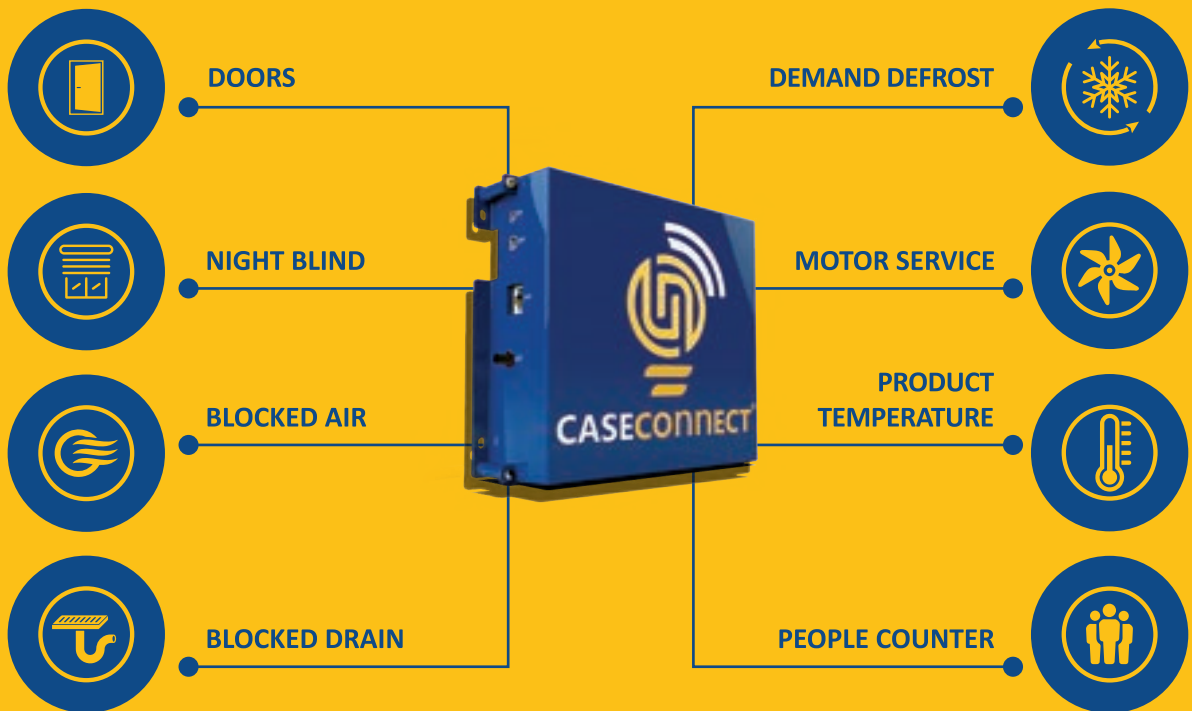
PLATFORM AND OVERVIEW

CASECONNECT® IS A FUTURE PROOF, PLUG & PLAY TECHNOLOGY that integrates IoT sensors with advanced cloud technology into our refrigerated cases, integrating asset management and retail customer engagement.

CaseConnect® provides immediate returns by enabling proactive response for service companies and synchronised approach to retail marketing teams based on real-time data.



IMPORTANT OPPORTUNITIES



LEADING TO



Proactive Maintenance



Low Operating Costs



Marketing Insights

**CaseConnect® - An innovative IoT solution that will enable
Better Data = Smarter Solutions**

**We see the potential in
Automating SMART MAINTENANCE to SAVE MORE
SMART ENERGY solutions to WASTE LESS, and
incorporating SMART SALES & MARKETING with
live data to SELL MORE**

BETTER DATA = SMARTER SOLUTIONS



SAVE MORE

CaseConnect® comes fitted as an additional option on selected cabinets or can be retrofitted in certain cabinets to convert them into a smart self-monitoring and self-diagnosis equipment which can notify staff instantly of issues.

- Enables transition from preventative to proactive maintenance contracts
- Proactively measures self diagnosis and reports on critical equipment and incidences
- Integrates with existing equipment controller and alarm systems to optimise case operation



WASTE LESS

CaseConnect® ensures the optimum level of refrigeration performance and food quality while reducing excessive energy and operational costs.

- Move from conservative preset defrosting to demand based defrosting
- Blinds, fans and lights integration to deliver energy savings
- Self monitoring programs to optimise refrigeration performance including blocked air returns



SELL MORE

CaseConnect® technology detects customer traffic and provides meaningful insights to know more about your consumers preferences. Live market detail enabling you to make more profitable decisions when it comes to product placement, stock and marketing.

- Real time insights into consumer traffic
- Planogram efficiency
- Real time sales and marketing data for increased sales
- Electronic shelf labels and video output marketing

FIRST 8 INITIAL IoT SENSORS



1. DOORS IoT

SAVING YOUR ENERGY & COSTS

- Door Open Alarm
- Planogram Success Measure



2. NIGHT BLIND IoT

SAVING 14% OF YOUR ENERGY COSTS

- NB Open Alarm
- Fan Motor Energy Reductions



3. BLOCKED AIR IoT

INCREASES CASE EFFICIENCY

- Return Air Block Alarm
- Optimize Performance



4. BLOCKED DRAIN IoT

AVOIDS ASSET DOWNTIME

- Automatic Drain Blockage Detection
- Avoids poor Hygiene & Customer Impact



5. DEMAND DEFROST IoT

ENERGY SAVINGS AND NO ADJUSTMENTS FOR SEASONALITY/DEMAND

- Maximise Equipment Uptime
- Avoid Unsafe Product Temp



6. MOTOR SERVICE IoT

FOCUSED MAINTENANCE & RUNNING

- Avoids unnecessary defrosts
- Automatic Ice Detection



7. PRODUCT TEMPERATURE IoT

SAVING YOUR ENERGY & COSTS

- Monitor Case Temp in Real Time
- Prevent Product Wastage



8. PEOPLE COUNTER IoT

CUSTOMER METRICS

- Insights of High Flow Areas
- Planogram Success Measure

FIRST 8 INITIAL IoT SENSORS



1. DOORS IoT

SAVING YOUR ENERGY & COSTS

Our CaseConnect® Door IoT ensures food preservation is maximized by sending an automatic alert notification to your team should a door be left ajar or open.

Benefits

- Case efficiency by ensuring the door is always closed will improve energy savings.
- Improvement in temperature control resulting in better food storage quality.
- Alongside the people counter IoT, the ability to measure of Planograms to understand how many people are opening doors and how they move through the supermarket.

How Does it Work?

This IoT detects if the doors are open/closed using a Hall sensor and a magnet, this works similar to a touch sensor. When the doors are closed the Hall sensor will detect the magnet and read closed, when the magnetic is not detected, it will read open.

2. NIGHT BLIND IoT

SAVING 14% OF YOUR ENERGY COSTS

CaseConnect® technology detects the night-blind position and automatically reduces the evaporator fan speed to lower your energy consumption in our new P-Series Cases.

Benefits

- Being able to increase case efficiency by ensuring the blind is closed during off hours, which will decrease fan motor speed and cooling usage and increase energy savings.
- Maintain safe internal temperature at night when cabinets not in use by eliminating adverse airflow that can cause abnormal temperature changes.
- Align with store operating hours for alarm messages.

How Does it Work?

This IoT detects if the night blind is open/closed using an infrared (IR) sensor that detects the thickness of the blind by measuring the distance the light returns to the sensor in Volts (V).



FIRST 8 INITIAL IoT SENSORS



3. BLOCKED AIR IoT INCREASES CASE EFFICIENCY

With CaseConnect®, airflow is monitored to ensure optimal air return, and will automatically generate an alert notification.

Benefits

- Reduces adverse air flow deflection from blockages that could potentially impact case performance and energy efficiency and increases energy consumption.

How Does it Work?

This IoT detects products and objects blocking the airflow at air return grill. This works using an infrared light from each end of the case to check if there are any obstacles within the air inlet and notifies accordingly. These live results can be viewed and tracked through our CaseConnect® Portal.

4. BLOCKED DRAIN IoT AVOIDS ASSET DOWNTIME

CaseConnect® automatically detects the onset of drain blockages and prevents overflow by notifying your service staff.

Benefits

- Reduce preventative maintenance costs by servicing only the cabinet with a blockage and knowing what the issue is in advance.
- Reduce costs by eliminating the need for expensive chemical drain clearing tablets.
- Avoid the cost of unloading full case line ups for deep cleaning.
- Minimise customer disruption and lost revenues.
- Eliminate flooding and store damage.

How Does it Work?

This IoT detects water accumulation in the basin and notify as drain blockage. This is done using a Capsense sensor that will detect the capacitance of the rising water to send an alarm notification in advance.



FIRST 8 INITIAL IoT SENSORS



5. DEMAND DEFROST IoT

ENERGY SAVINGS & NO ADJUSTMENTS FOR SEASONALITY/DEMAND

The system uses advanced technology to detect exactly when the evaporator coil requires defrosting, based on the individual case conditions. We simply measure ICE!

Benefits

- Increase case efficiency resulting in energy saving and lower overall costs.
- Avoid temperature fluctuations and prevents microbe growth in products.
- Ability to adapt to high humidity environment. Also includes fail safe option when used with temperature sensor to trigger an on demand defrost.
- Eliminates unnecessary defrosts by detecting best possible times from defrost and allows for defrost cooldown periods.
- Reduce Carbon Emissions through energy savings.

How Does it Work?

This IoT detects ice formation on the evaporator fins to trigger an On-Demand Defrost cycle. This is done via a Capsense sensor that will record the capacitance change between sensor and evaporator fins when ice occurs, thus triggering a response to the cases controller.

6. MOTOR SERVICE IoT

FOCUSED MAINTENANCE & RUNNING

CaseConnect® automatically detects the onset of drain blockages and prevents overflow by notifying your service staff.

Benefits

- Early signs of maintenance & notifications.
- Planned service based on total run time.
- Avoid unsafe product temperatures and wastages from abnormal fan speed/action notifications.
- Maximize equipment uptime by monitoring and using the different fan speeds when its actually needed as supposed to full time. Increases energy efficiency.

How Does it Work?

This IoT monitors the current usage by all fans in the case and reports abnormalities. This is done by using a current sensor to calculate the current passing through to measure speed at which the fan is operating at.



FIRST 8 INITIAL IoT SENSORS



7. PRODUCT TEMPERATURE IoT SAVING YOUR ENERGY & COSTS

CaseConnect® intelligent monitoring of operating temperatures in equipment provides alert notifications in cases with abnormal operating temperature conditions. It takes care of compliance costs with minimal increase in cost.

Benefits

- Monitor case temperature in real-time for compliance.
- Prevent product wastage.
- Detecting unsafe temperature.
- Air off Fail Safe for Defrost.

How Does it Work?

This IoT is a waterproof digital temperature sensor, that's used to monitor product temperature as well as act as a fail-safe option for the on demand defrost application.

8. PEOPLE COUNTER IoT CUSTOMER METRICS

The CaseConnect® IoT People Counter monitors the measurement of customer traffic flow.

Benefits

- Insights of high traffic areas.
- Assists in-store marketing to better plan and increase sales.
- Indications of dwell time and traffic lead to real-time planogram feedback.
- Future engagement can be enhanced by integrating Hussmann Digital Labels and Video rails.

How Does it Work?

This IoT is used to monitor customer traffic and case usage trends. This works by using Lidar sensors that Counts the number of people passing by or stopping by the case.



HOW IT ALL WORKS

CaseConnect®'s FIRST 8 IoT TECHNOLOGIES Connected to our CaseConnect® Controller

IoT SENSORS	PROACTIVE MAINTENANCE	ENERGY SAVINGS	SUSTAINABILITY	SALES & MARKETING
DOORS	✓			✓
NIGHT BLIND		✓	✓	
BLOCKED AIR	✓			
BLOCKED DRAIN	✓			✓
MOTOR SERVICE	✓	✓	✓	
DEMAND DEFROST	✓	✓	✓	
PRODUCT TEMP	✓		✓	
PEOPLE COUNTER				✓

INSTALLATION & MAINTENANCE



COLOR CODED PROBES

All wires are labelled with color-coordinated, water proof probe connection points. This increases efficiency and ease for installation and servicing.



SERVICEABILITY & MAINTENANCE

- Easy access via electric box
- Labelled connection points for quick identification
- Wi-Fi connectivity

HOW IT ALL WORKS



Website & Dashboard

ACCESS ANYWHERE VIA WEB

Customers can set-up and customise their reports



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