Monitoring Self-Service Markets with Zabbix and IoT
A case study

Client

INDUSTRY
RETAIL

ESTABLISHED
2021

HEADQUARTERS
MIAMI, FLORIDA

HEADCOUNT
APPROXIMATELY 50 EMPLOYEES
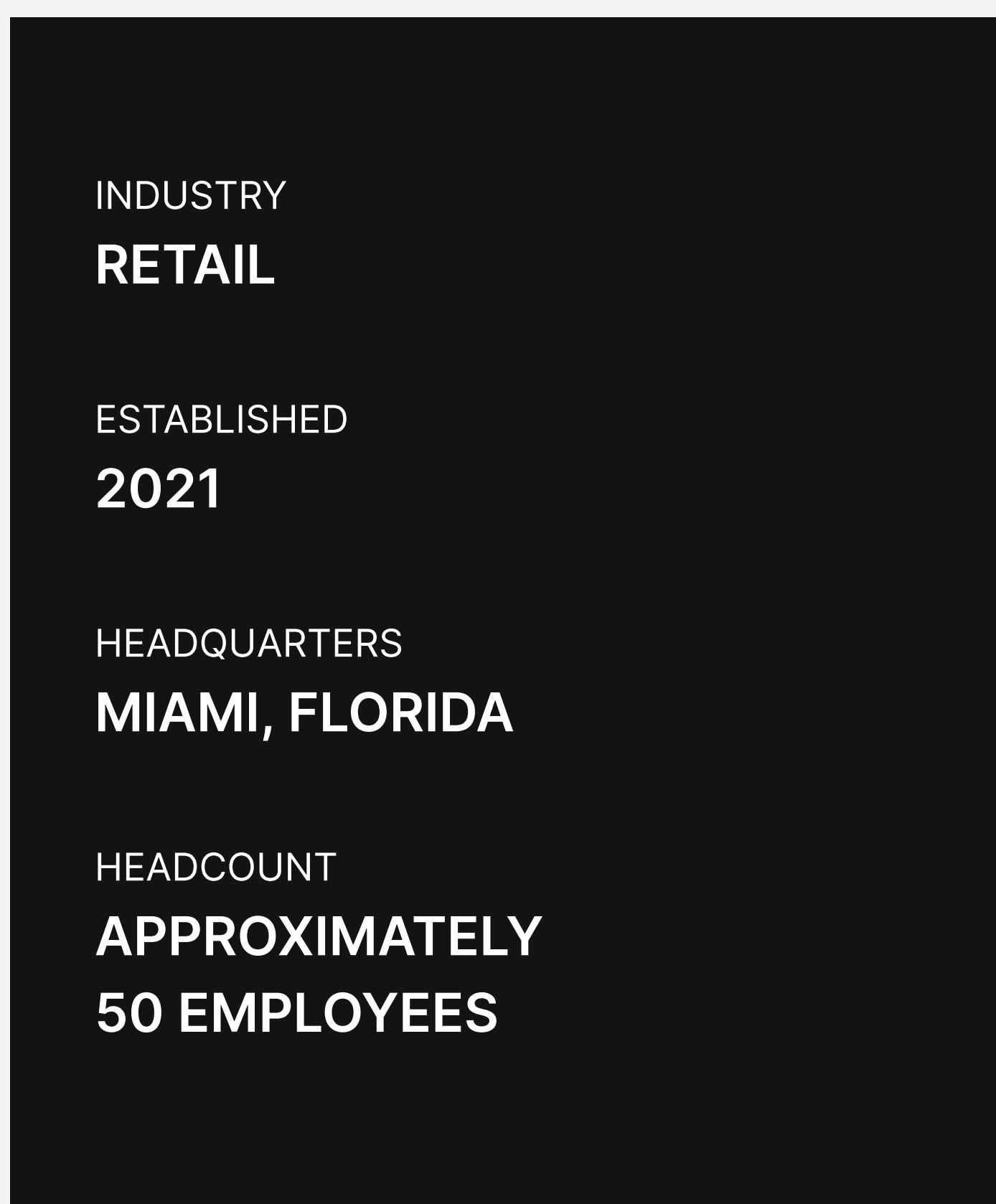
Since 2021, QU!CK Scan & Go has been developing self-service mini market systems, available in residential complexes and corporate buildings. Available 24 hours a day, 7 days a week, the technology developed by QU!CK Scan & Go allows markets to be open at all times, with 100% self-service.

Challenge

With the rapid growth in their business, QU!CK Scan & Go needed to be able to easily visualize operations in order to handle environmental issues and avoid product loss due to external factors. In the event of a power outage, for instance, refrigerators and freezers will fail to function, a problem that may take considerable time and effort to fix and that may result in severe financial losses.
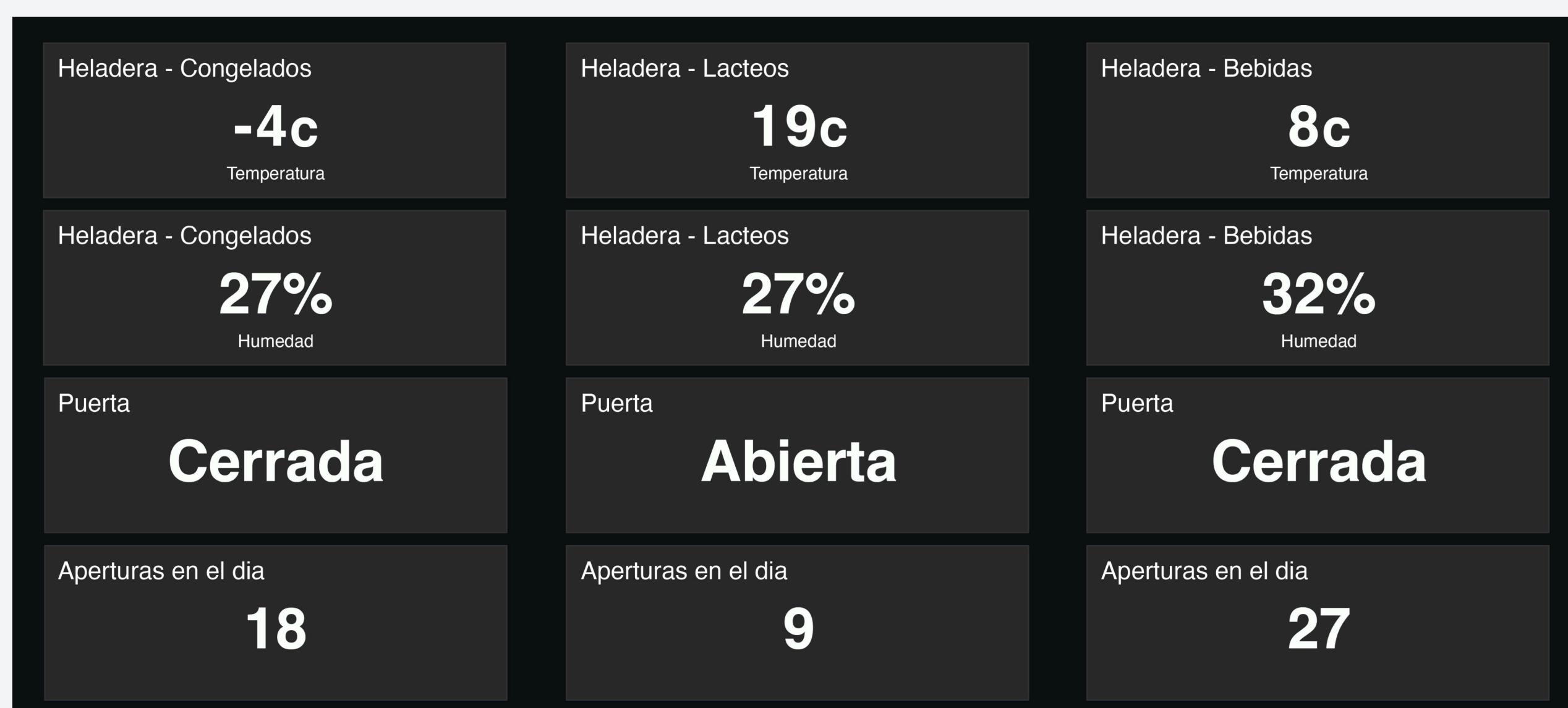
Solution

QU!CK Scan & Go's search for a solution led them to Zabbix by way of CTL Information Technology, a Zabbix Certified Partner in Argentina. At the beginning of the implementation project, CTL identified all possible variables necessary for monitoring that should generate alarms in the case of an extraordinary event.

First, they had to configure the Zabbix Agent on the monitoring device. After that, they created a standard monitoring model to be used in all establishments, according to data collection and alarm triggering needs.

The alarms were subsequently adjusted, with possible responses implemented according to each variable identified. At that point, data visualization was organized in an external system just for reviewing the integrated dashboards.

Thanks to the implementation of IoT devices to control the temperature and the opening and closing of doors, alerts are sent to Zabbix in the event of unusual activity, such as very high or low temperatures, doors opened without supervision, and refrigerator doors open longer than the stipulated time, among other issues.

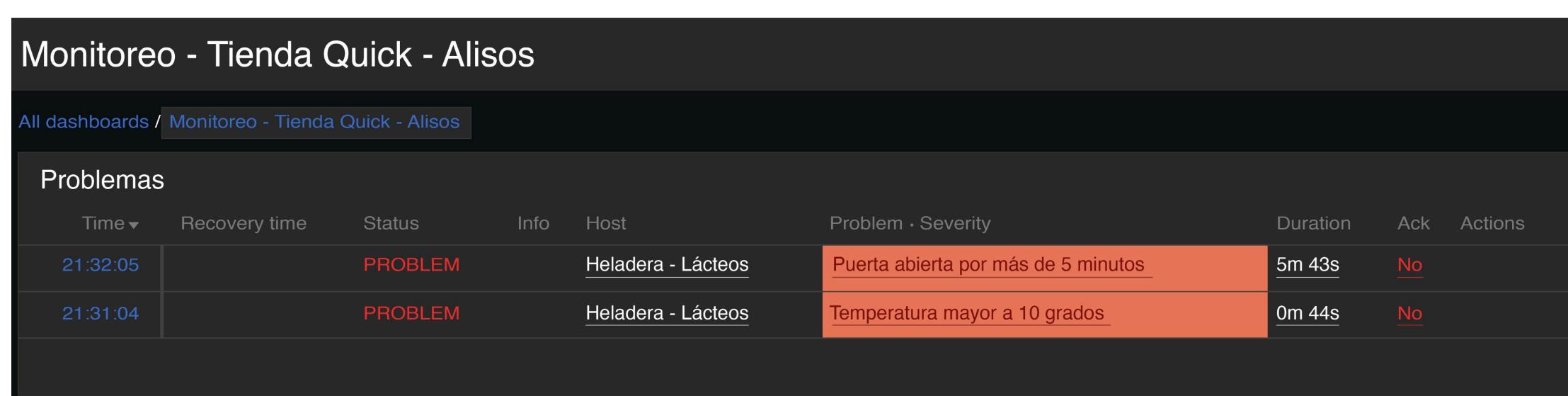| Heladera - Congelados	Heladera - Lacteos	Heladera - Bebidas
-4c	**19c**	**8c**
Temperatura	Temperatura	Temperatura
Heladera - Congelados	Heladera - Lacteos	Heladera - Bebidas
27%	**27%**	**32%**
Humedad	Humedad	Humedad
Puerta	Puerta	Puerta
Cerrada	**Abierta**	**Cerrada**
Aperturas en el dia	Aperturas en el dia	Aperturas en el dia
18	**9**	**27**

Results

Since the implementation of Zabbix project in QU!CK Scan & Go's self-service markets, a variety of benefits have been apparent, including:

- **Increased control of self-service establishments**
- **Faster resolution of incidents**
- **Improved visualization of operations**
- **Increased availability of services**

However, the biggest returns on investment were observed at the financial level. With power outage monitoring and quick corrective actions, losses of perishable products have decreased by 75%.

Additionally, with real-time visualization of operations and business monitoring, the profitability of refrigerated products during power outage incidents has increased by 100%. Currently, QU!CK Scan & Go is the leading company in the self-service market segment in Argentina in terms of turnover, with a rapidly increased brand value.

Monitoreo - Tienda Quick - Alisos

All dashboards / Monitoreo - Tienda Quick - Alisos

Problemas

Time	Recovery time	Status	Info	Host	Problem - Severity	Duration	Ack	Actions
21:32:05		PROBLEM		Heladera - Lácteos	Puerta abierta por más de 5 minutos	5m 43s	No	
21:31:04		PROBLEM		Heladera - Lácteos	Temperatura mayor a 10 grados	0m 44s	No	

Conclusion

While successful, the Zabbix project carried out by CTL and QU!CK Scan & Go is far from finished. The implementation of Zabbix in the company is accelerating at the same rate that new establishments are opened, and the proposal is to continue expanding this monitoring project by completely migrating data visualization to Zabbix. For QU!CK Scan & Go, Zabbix has become much more than an IT infrastructure monitoring provider. Our solutions have improved their business and brought added value to their brand.

To learn more about what Zabbix can do for customers in retail

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