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Supervisory System

-

RemotePRO

What is RemotePRO



RemotePRO is the new solution by CAREL with the goal of centralize data from local supervisory in order to provide to the customer a complete powerfull system.

The key points of the solution are:

Alarms centralization and management

More security to the systems connected

Data centralization and analysis

Produce Add Value Information

What is RemotePRO



RemotePRO

has been designed in order to:

- Manage up to 50 stores (Basic package);
- Store up to 7.000 variables (Basic package);
- Centralize and dispatch all the alarms;
- Have a global overview of the whole systems connected.
- Make benchmarking between stores from the point of view of:
 - Energy Consumption;
 - Service management;
 - Commissioning status;
- Reduce OPEX cost of the customer;
- Identify and optimize the store performance;

Hardware specification



RemotePRO must be installed in a dedicated server with the following minimum requirements:

- CPU DUAL CORE 2.66GHz
- 2GB RAM
- 500 GB HDD
- RISOLUTION 1024 x 768 MIN

Operation system:

- WIN XP SP3
- WIN SERVER 2003 / 2008
- WIN VISTA BUSINESS EDITION
- WIN 7 PROFESIONAL

Secure site access - Dashboard



Possibility to centralized the access on each plant in one single point and have a global overview of the whole installations.

Supervisors Status

Refresh Cancel record retrieved

Description: Supervisor Type:

Status: Client:

Plant:

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L.T.	Status	Client	Plant	Supervisor	Type	Channel	Connection	Last Synchro...	Last Alignment
	●	Big Supermarket Chain	Milano ***	Milano Market ***				30/08/12 16:33:31	30/08/12 15:38:41
	●	Little Supermarket Chain	Roma	Moscow Mini Market **				17/09/12 09:46:08	17/09/12 09:46:29
	●	Big Supermarket Chain	Moscow **	Roma HyperMarket				30/08/12 16:40:23	
	●	Big Supermarket Chain	Saint Petersburg *	St Petersburg Hyper *				30/08/12 15:30:37	
	●	Little Supermarket Chain	Venezia	Venezia Little Store				30/08/12 15:31:02	

Export options: CSV | Excel | XML | PDF

- Real time stores status overview;
- Life test status connection;
- Fast access to the single store using «green button»;
- Time of last synchronization alarms;
- Time of last data alignment;
- Connection type.

Secure site access - Profiles



There are 3 profile level defined into ths system.

Each profile has a particular right in read and write mode.



INSTALLER



MANTAINER



USER

Secure alarm centralization



Possibility to centralized the whole alarm situation.

Active Alarms Reset Alarms Alarms Accumulated

Refresh Cancel

Description:

Priority:

Supervisor:

From: 26/08/12 To: 26/09/12

Status:

Device:

Spare Parts:

Client:

record retrieved

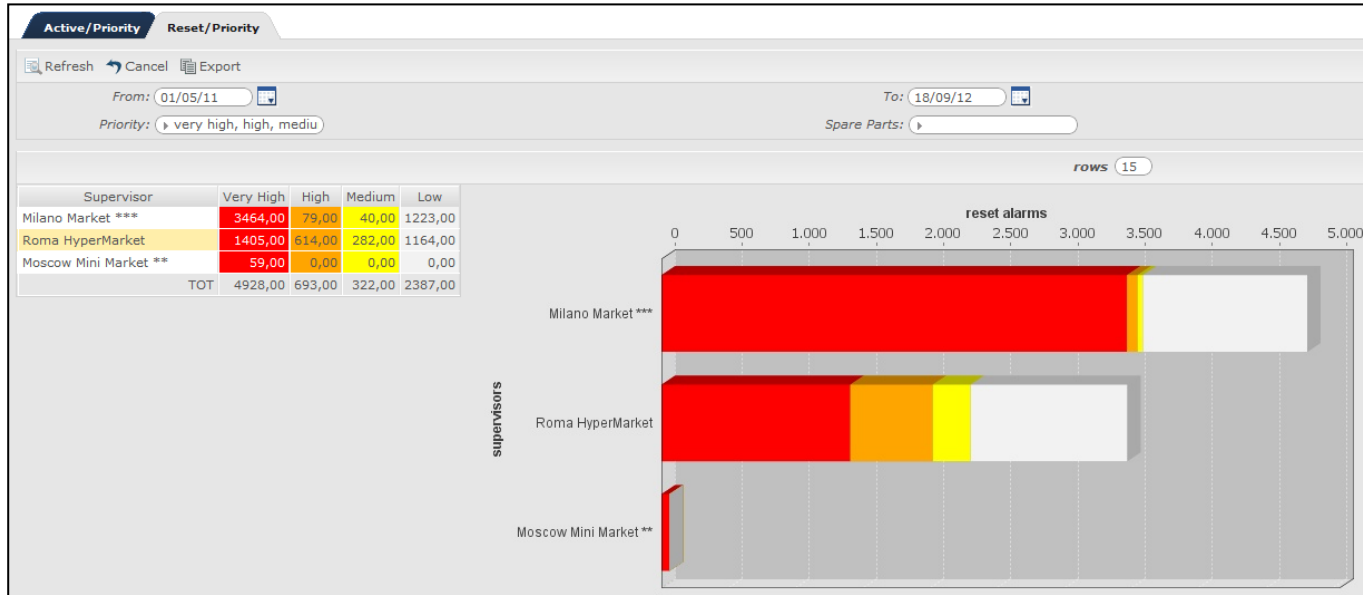
Spare Parts rows: 12

RA	SP	Arrival Time	Start Time	End Time	Duration	Supervisor	Device	Description	Plant	Client	Area	AK	CA	RE	Inhibited
		30/08/12 16:40:23	30/08/12 12:06:42	30/08/12 14:46:56	02h 40m 14s	Roma HyperMarket	IR 33 - F - 2	Delayed external alarm	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 09:40:45	30/08/12 14:46:56	05h 05m 10s	Roma HyperMarket	MPXPRO Step 2 - 2	Stepper driver communication error	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 11:48:38	30/08/12 14:46:56	02h 58m 18s	Roma HyperMarket	IR 33 - F - 2	Probe 4 fault alarm	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 08:46:33	30/08/12 14:46:56	06h 00m 23s	Roma HyperMarket	MPXPRO Step 2 - 1	Rail heaters probe error	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 10:57:58	30/08/12 14:46:56	03h 48m 57s	Roma HyperMarket	IR 33 - F - 3	Operation parameter oeprom alarm	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 10:05:49	30/08/12 14:46:56	04h 41m 06s	Roma HyperMarket	I/O Module - 1	Probe 4 fault alarm	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 09:05:07	30/08/12 14:46:56	05h 41m 49s	Roma HyperMarket	IR 33 - F - 3	Probe 4 fault alarm	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 14:17:07	30/08/12 14:46:56	29m 49s	Roma HyperMarket	MPXPRO Step 2 - 1	External delayed alarm / notification only	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 14:19:37	30/08/12 14:46:56	27m 19s	Roma HyperMarket	MPXPRO Step 2 - 1	I4 probe error	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 14:21:38	30/08/12 14:46:56	25m 18s	Roma HyperMarket	IR 33 - F - 2	Probe 3 fault alarm	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 11:20:32	30/08/12 14:46:56	03h 26m 23s	Roma HyperMarket	I/O Module - 1	Alarm digital input 5	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 12:29:45	30/08/12 14:46:56	02h 17m 10s	Roma HyperMarket	Ducati energia smart pig -4	No connection	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 13:12:52	30/08/12 14:46:56	01h 34m 04s	Roma HyperMarket	MPXPRO Step 2 - 2	Slave 5 with alarms	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 12:51:19	30/08/12 14:23:00	01h 21m 49s	Roma HyperMarket	MPXPRO Step 2 - 1	Slave 3 communication error	Moscow **	Big Superm...	Russia				
		30/08/12 16:40:23	30/08/12 13:24:26	30/08/12 14:46:56	01h 22m 30s	Roma HyperMarket	MPXPRO Step 2 - 2	I6 probe error	Moscow **	Big Superm...	Russia				

Export options: CSV | Excel | XML | PDF

- Real time alarms status overview;
- Global history of the alarms;
- Possibility to force maintainer to ACK each single alarm and put a note for the resolution problem;
- Notify each alarm depending on the status,priority,store and time window;

Secure alarm centralization

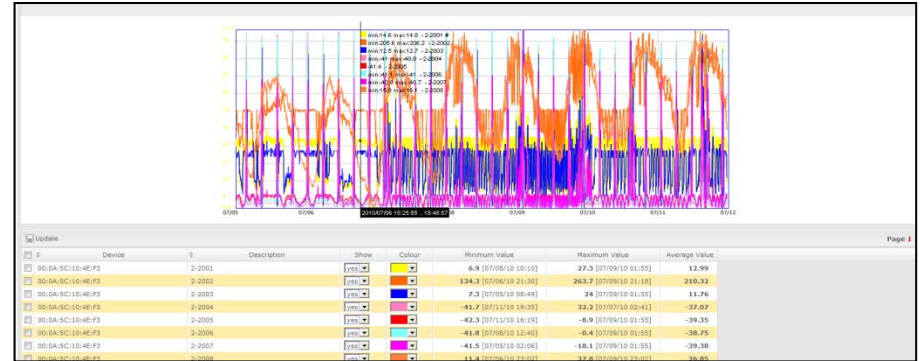
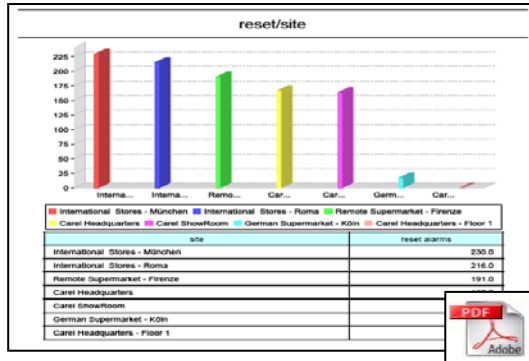


Alarm Behavior Report.

User has an immediately feedback on the current alarms situation and history in order to identify which is the worst store.

Possibility to «Drill Down» into the single store and rate the worst device until to reach the alarm list of the single device.

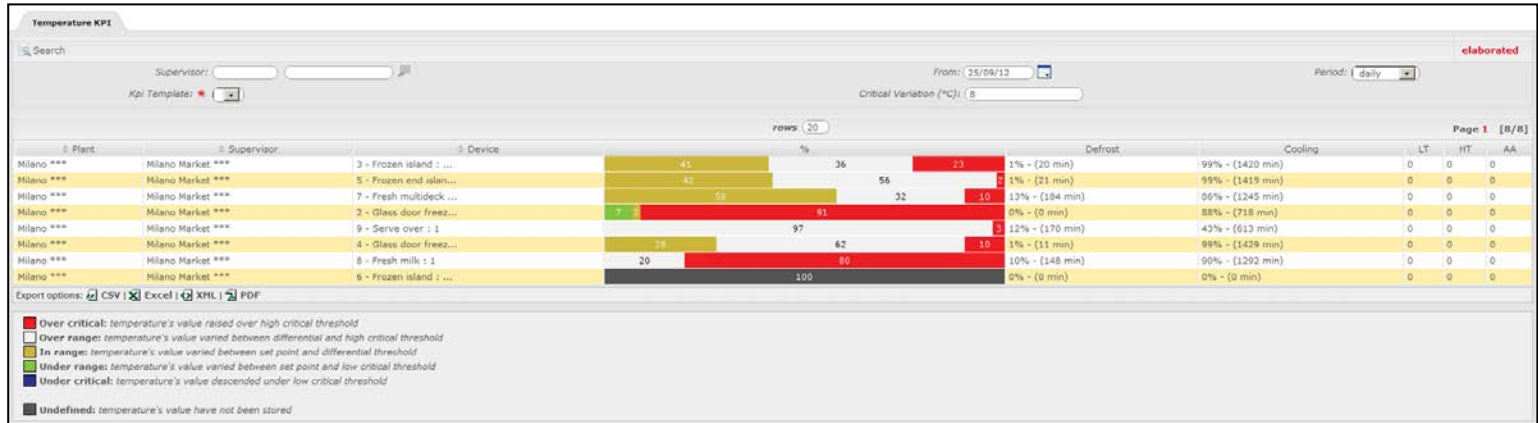
Data centralization and report



Centralization is a powerful instrument in order to have a single interface for analysis and troubleshooting.

Scheduled report or on demand report give the possibility to be always update on the whole stores situation and react in the right-fast way.

Temperature Behavior Report



One single click,

in order to see the behavior of the cabinet's temperature and how they are performing.



At this level, Refrigeration Manager is the target user.

Fast overview on each store and possibility to drill down in the particular situation.

Temperature Behavior Report



- Over critical:** temperature's value raised over high critical threshold
- Over range:** temperature's value varied between differential and high critical threshold
- In range:** temperature's value varied between set point and differential threshold
- Under range:** temperature's value varied between set point and low critical threshold
- Under critical:** temperature's value descended under low critical threshold
- Undefined:** temperature's value have not been stored

➤ Daily Report

➤ Time window Report



Energy Consumption Report



Energy KPI Per Supervisor

Search elaborated

Supervisor:

Kpi Template: *

Plant: *

From: 25/09/12

To: 25/09/12

Description	Value (KWh)	%	N.F.	N. Value (KWh)	Norm. Value %	# Cont.	Val./# Cont....
Roma HyperMarket	5092.00	53,82	1,00	5092.00	53,82	44	115,73
St Petersburg Hyper *	4145.00	43,81	1,00	4145.00	43,81	35	118,43
Milano Market ***	224,20	2,37	1,00	224,20	2,37		
average	3153,73			3153,73			117,08
total	9461,20		3,00			79	

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Compare stores by Energy Consumption (KWh).

Possibility to normalize values depending on user needs.

Fast feedback on the worst store consumption and possibility to analyse in detail the reason why of the behavior.

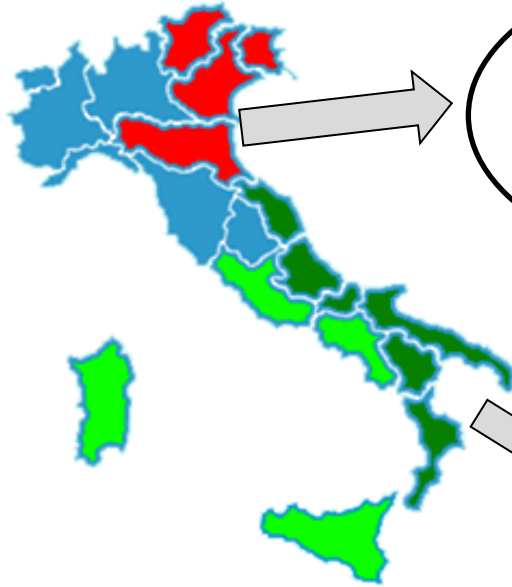
Continuous commissioning.



At this level, Energy Manager is the target user.

Fast overview on each store and possibility to drill down in a particular situation.

Service Company Management



SERVICE COMPANY 1



SERVICE COMPANY 2

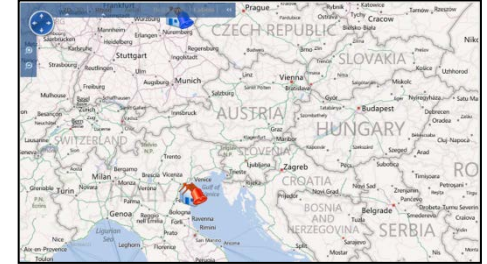
Service Company Management



SERVICE COMPANY 1



SERVICE COMPANY 2



**Most of the big supermarket chain has different service company for the stores management.
They want to know how these service company perform.**

BMS Integration - GATEWAY



Some time there is already an high level BMS system.

This BMS does not have access to the refrigeration information.

With the GATEWAY plugin we offer information comming from different supervisory system keeping one single protocol interface.



NRGdash – Energy Benchmark

App.kpi.energy.period.typology

Trova elaborato

Informazioni Principali

Global.typology: Da: 01/08/2012
Global.open: Periodo: * settimanale

Ricambi

Impianto	Categoria	App.opening	Area	Valore (KWh)	App.Refr	App.Luci	App.AC	App.Carichi	App.Other
Torino	Supermercato	24/7	Area1	56745,00	20683,00	11306,00	20756,00	0,00	0,00
Palermo	Express	no24/7	North Italy	51543,00	15449,00	15719,00	20375,00	0,00	0,00
Napoli	Ipermercato	24/7	North Italy	154917,00	46724,00	25852,00	43236,00	20640,00	20465,00
Milano	Ipermercato	no24/7	Area1	188688,00	72462,00	20466,00	28802,00	20715,00	20842,00

Esporta in: CSV | Excel | XML | PDF

Possibility to benchmark the stores depending on their attributes:

- Type of store;
- Type of area;
- Type of open mode (24/7 or not);

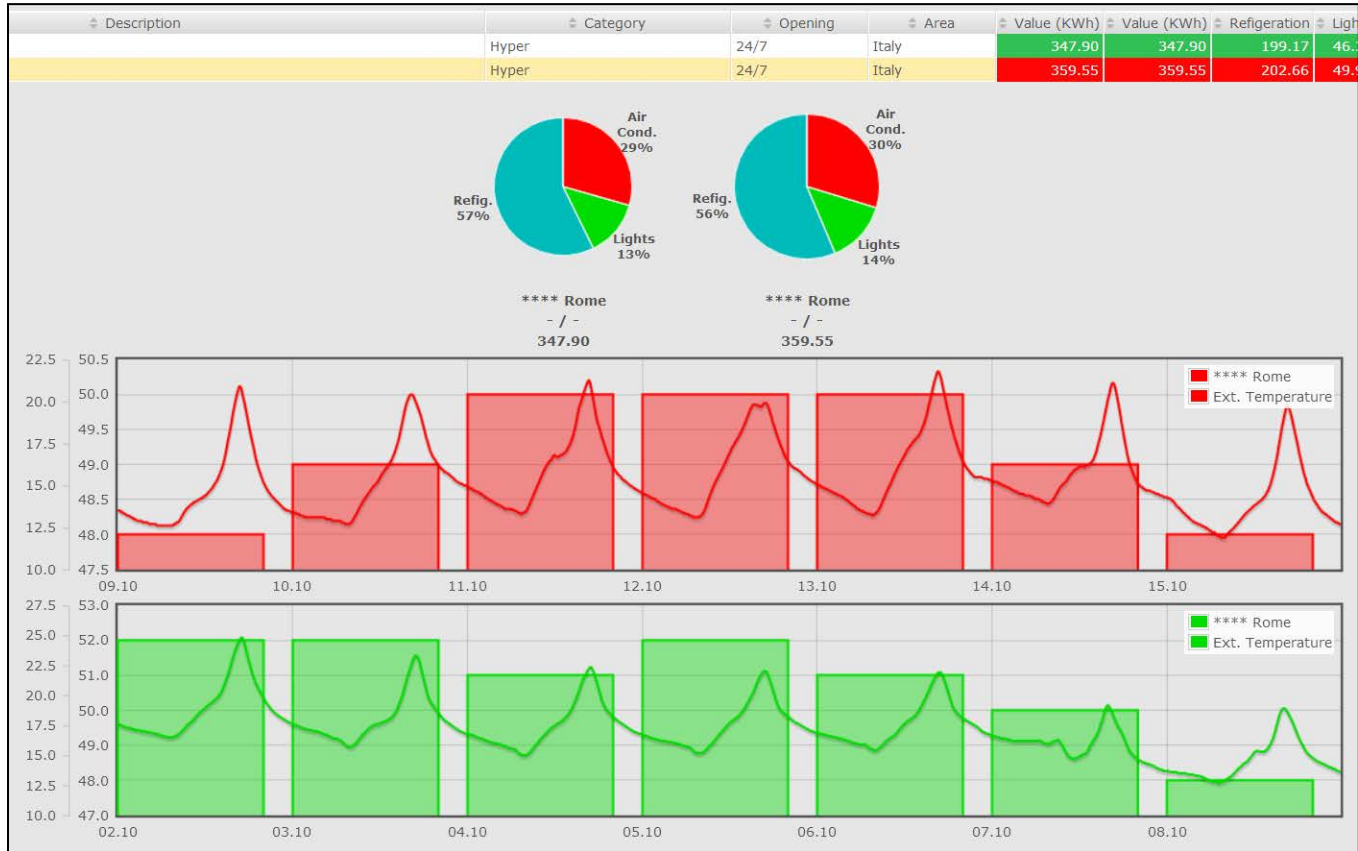
Clear distribution of the energy consumption.

Dashboard Energy



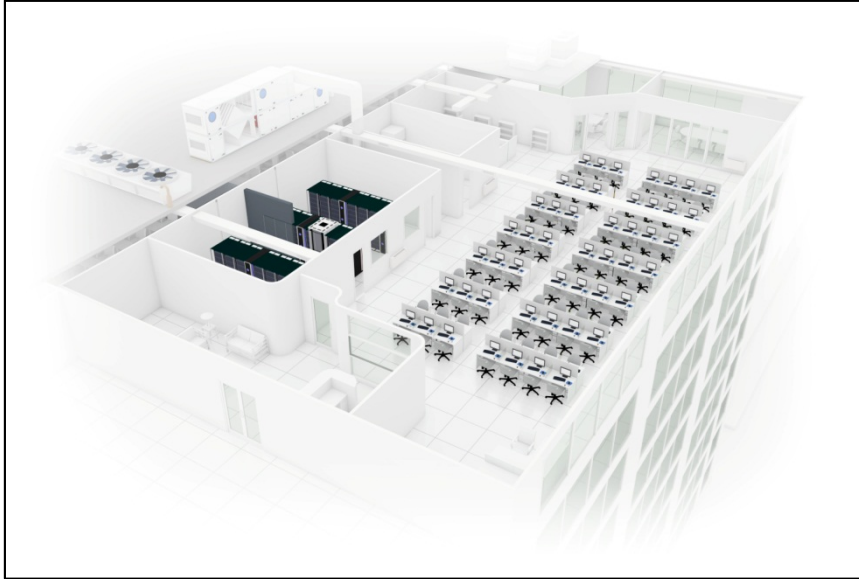
- Benchmark;
- Comparison of the stores
- Analysis of the variables effecting the energy consumption.

Dashboard Energy



Compare the single stores with his data history in the week / month and year.

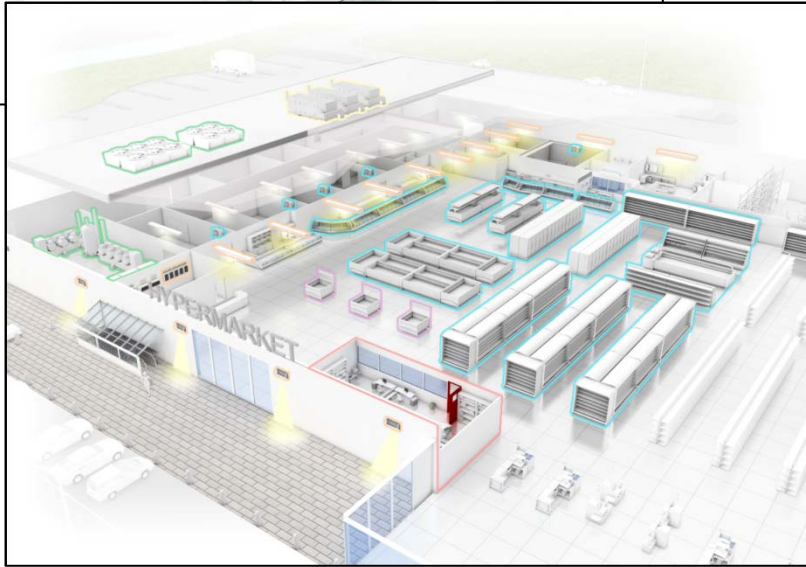
Typical Application



R.O.C -> Remote Operation Center

Contractors and Distributors build up new way of business / service using our system in order to improve customers loyalty.

Typical Application



Supermarket Chain

Company are investing a lot in this new way of control.

Main drivers are:

- Energy Saving;
 - Service Management
- for OPEX reduction.

Typical Application



3rd Party Integrator

Company as Consultant are providing a new add value solution based on our system.

Fetch the data and run its algorithm providing report and analysis.

High
Efficiency
Solutions.

CAREL
