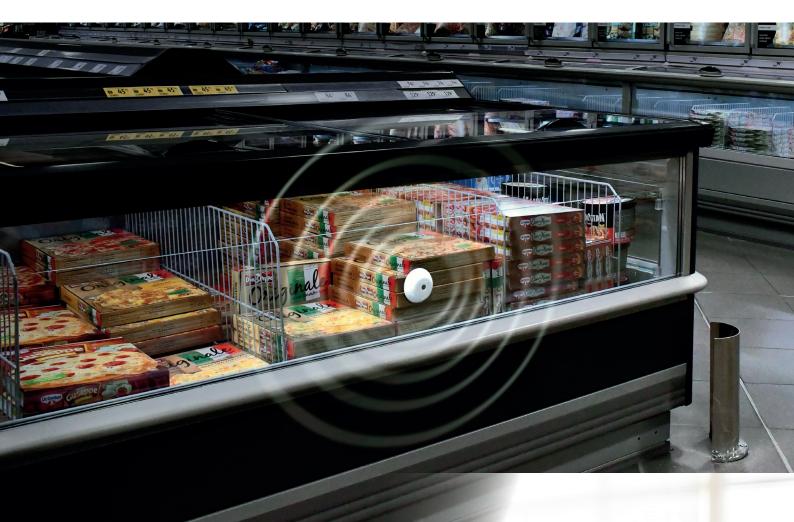


Temperature. Energy. HACCP. Service Operations.



angle to the halfs

Store performance online

Autonomous. For 30 years.

Get full control over the performance of your store



A fully autonomous monitoring system of wireless sensors that **monitors key store operation data** 24/7

100% compliant with EN12830:2018





USER FRIENDLY ONLINE APPLICATION Effective Time & Cost Savings Tool

- Temperatures and HACCP under control
- Energy savings
- Service cost savings
- Food loss savings
- Material savings /Labor savings
- Minimal maintenance cost
- Minimal energy consumption
- Easy to install no wires

ENERGY







TEMPERATURE

EQU

EQUIPMENT

SERVICE

Wireless sensors with more than 30-years battery lifetime

GATEWAY GB41

DOOR SENSOR DS1

HACCP TEMPERATURE SENSOR TS1

TEMPERATURE AND HUMIDITY STORE SENSOR LS1





EXTERNAL UNIT EB2 + PRODUCT TEMPERATURE SIMULATION SENSOR PS7 + NEEDLE SENSOR NS4 EXTERNAL UNIT EB2 + EXTERNAL CABLE SENSOR WITH 50 MM PROBE ES5

NO WIRES, NO BATTERY CHARGING

All sensors have power supply by special battery integrated in the sensor body. With minimum power consumption technology.

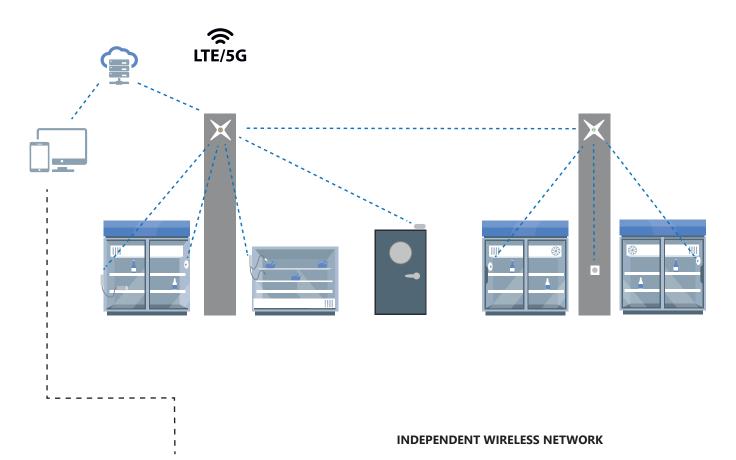
000 p

SYNSTORES 30 years battery lifetime, guaranteed minimum 10 years.*

Complete list of HW components – visit www.synstores.com

*) except LS1 sensor - comes with replaceable battery

From wireless sensors to your mobile or desktop device



Records from the sensors are automatically measured at **two minute** intervals and sent by the gateway to the cloud server. From there to any device connected to the internet via the SYNSTORES application.

Our Applicaton shows the user (for example, the outlet manager) current temperatures, temperature history and opening and closing of doors in refrigeration and freezer boxes, energy consumption and much more.



Safe, running on MICROSOFT Azure. Safety certified by TÜV SÜD. No operational limits. No restriction for number of users or pcs of equipment.

Unique properties of sensors

- No additional calibration needed. •
- The plastic material used has a certificate for coming . into contact with food.
- Sensors are waterproof and dust-proof. •
- Their surface is easy to clean. •
- Rounded lens shaped sensors that don't get in the way • when you are handling goods.
- Certified by TÜV SÜD according to EN 12830:2018. •
- Tested by the Czech Metrology Institute.
- The system complies with EN 12830:2018.
- Independent supervision of service organisations. .



Easy and superfast installation

Sensores can be fitted in all appliances - in refrigeration counters, freezer boxes, cabinets and other plug-in furniture, drinks refrigerators, freezers, and cold boxes, the measurement of core food temperatures, and also the "simulation measurement" of product core temperatures.

AVERAGE INSTALLATION TIME IN THE 800 M² STORE IS 3 HOURS

STEP 2 STEP 3 STEP 1



() synstores



Key monitoring values, operation and equipment performance in **one application**.



Proactive application

MONITORING, DIGITAL HACCP REPORTING AND MUCH MORE

- overview
- reports
- events
- alarms
- summary
- consumption (graphs, sheets)
- store performance comparison and evaluation

- equipment performance comparison
- open / closed doors statistics and evaluation
- service TAG (technician on store)
- service call button
- critical issue button





TEMPERATURE

ENERGY



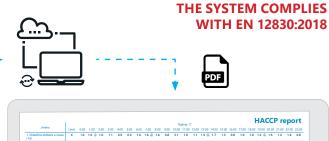


SERVICE

EQUIPMENT

Automatic HACCP reporting

JUST SELECT STORE, DAY, WEEK, MONTH AND DOWNLOAD HACCP REPORT FOR EACH EQUIPMENT



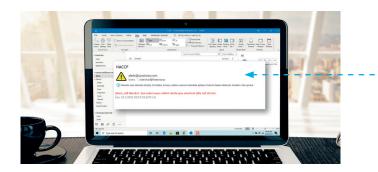


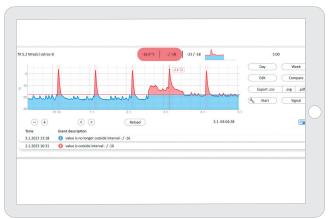
Records from the sensors are stored on the server as daily HACCP reports. Reports are immediately available to the user as PDF files, which can be downloaded with a single click. **Reports are saved on the server for at least one year, in accordance with applicable HACCP legislation.**

												Te	olotx 1							1	на	сс	P re	epo	ort
Jiméno	Linit	0.00	1:00	2.00	3:00	4:00	5.00	6.00	7.00	8:00	9:00				13:00	14:00	15:00	16:00	17:00	18:00	19.00	20.00	21:00	22.00	23:00
1. Chiadima drūbeže a masa (10)	4	1.0	1.6 (1.0	1.1	0.9	0.9	1.6	1.6 🤅	1.6	0.8	2.1	1.0	1.1	1.9 🧉	1.7	1.3	0.8	1.0	1.0	1.2 (1.6	1.2	1.4	0.8
 Chladima zeleniny a mléčných výrobků (12) 	12	6.0		4.8 🔒							7.0					4.7 🔒						5.0 🧉		4.7	
3. Mrazima potravin, pekáma (15)	-12				-13.7																			-19.3	-12.8
 Chladima lahūdity, sýry (11) 	10				5.0																			3.2	
5. Chladicí regál 250 zelenina (4A)	14	53 🤅	9.2	5.8	5.4	5.7	5.5	5.7 🧯	9.5	6.1	5.1	4.9	4.7	4.9 @	10.2	5.7	5.5	5.1	5.1	44 @	9.9	4.6	4.6	4.7	4.7
6. Chiadicí regál 250 zelenina (48)	14	5.9	8.4	6.2 @	5.8	5.9	5.8	5.9	9.6	5.4 🤅	4.8	4.8	4.8	5.3	9.9	5.4 @	5.1	4.7	4.8	4.9	9.8	5.5 🤅	5.0	4.9	4.8
7. Chladicí regál 375 maso '54)	8	0.9	1.0	1.0 @	3.7	1.2	1.2	1.1	12	1.2 🤅	43	1.6	1.0	1.0	1.4	1.2 @	5.2	1.9	1.1	1.1	1.1	1.3 (3.8	1.5	1.1
8. Chladicí regál 375 uzeniny S8)	8	1.1	1.3	1.1 @	6.1	1.5	1.3	1.5	1.7	2.4 🤅	6.6	1.9	2.5	2.0	1.8	1.5 @	7.3	2.9	1.9	1.9	1.9	1.7 🤅	7.0	2.0	1.5
 Chladicí regál 375 lahůdky SC) 	8	1.2	1.2	1.3 @	5.7	1.9	1.2	1.2	1.4	1.1 6	5.9	2.1	1.2	1.1	1.1	1.1 @	6.1	1.9	1.3	1.0	1.3	1.3 🤅	5.5	3.5	3.5
10. Obskužný pult sýry (7A)	10	8.6	8.3	8.4	8.3 💮	10.5	8.9	8.2	8.2	8.0	8.8 6	9.8	9.7	7.8	7.5	6.9	6.7 6	9.0	7.5	7.0	67	6.7	6.8 💮	8.5	6.7
11. Obskužný pult saláty (78)	10	3.1	3.3	3.3	2.8 🍙	4.1	3.3	3.4	4.0	4.1	43 6	4.9	4.4	4.6	5.2	4.7	4.9 🧯	5.8	4.9	4.4	5.0	5.1	53 🍙	5.2	5.0
12. Obslužný pult uzeniny (84)	10				3.9 🍙		4.7															5.9			
13. Obslužný pult salámy (88)	10	10.3	10.1	10.0	10.0 🍙	11.0	10.7	9.9	8.4	7.4	6.9														
14. Chladici regál 125 akční zboží (1)	12	3.6	4.1 (10.1	5.0	4.2	4.1			9.6		4.0	5.3	4.7	41 (10.4	4.8	4.2	3.7	42	4.8 (10.1	5.2	3.8	4.4
15. Chladicí regál 250 mléčné výrobky (2A)	12	3.9	4.4 (5.9	4.6	4.0	3.8	4.4	42 🤅	6.3	3.9	3.8	3.8	3.8	4.0 🤅	6.7	3.9	4.0	4.3	3.7	42 (41	5.5	4.1	4.0
16. Chladicí regál 375 nléčné výrobky (28)	12	4.6	4.7 (6.1	4.8	4.9	4.7	4.8	4.8 🤅	7.1	4.8	4.7	4.8	4.8	4.8 🤅	6.7	4.8	4.8	4.9	5.0	5.1 (5.0	6.3	4.9	4.7
17. Chladicí regál 375 nléčné výrobky (2C)	12	5.0	48 (6.0	5.0	5.0	4.7	5.0	44 6	6.3	5.1	4.7	4.7	4.5	43 (6.7	5.1	4.7	4.9	4.8	4.6 (4.8	5.5	4.8	4.6
18. Chladici regál 375 nléčné výrobky (3A)	12	4.0	3.9 🤅	5.4	3.9	3.9	3.9	4.1	4.0 6	6.2	4.2	3.8	3.6	3.3	41 6	6.9	3.3	3.1	4.1	3.9	3.6 (6.0	3.3	3.1	3.3
19. Chladici regál 375 niéčné vírobky (28)	12	4.2	4.1 6	5.4	4.1	4.2	4.0	4.3	43 🤅	6.0	4.4	4.3	4.1	4.0	44 6	6.9	4.5	4.4	4.6	4.4	3.7 (6.5	4.2	3.8	4.1

Alarms

IN CASE OF ANY PROBLEM SYNSTORES AUTOMATICALLY SENDS YOU A MESSAGE





Automatic control of the temperature has a major impact on safe preservation and storage of food or prepared meals

Door alarms

Door openings have a huge impact on temperature and hygienic limits required by the legal environment as well as on energy consumption of cooling and freezing chambers and for number of service calls caused by icing of evaporators there. Right side picture - printscreen example.

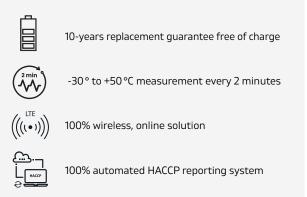


SYNSTORES – online **temperature** reporting system

Protecting the health of customers - the highest priority

Regular automatic control of critical points in the temperature chain has a major impact on safe preservation and storage of food, prepared meals, and pharmaceuticals. SYNSTORES provides a highly effective and technologically simple solution for monitoring this temperature chain in production and distribution of those commodities.

SYNSTORES also helps you to save the energy and service cost thus the operational cost of cooling and freezing equipment. With ES5 in combination with EB2 External unit you can also easily monitor your hot counters or cabinets.





Temperatures in refrigeration appliance (TS1).



Temperatures in freezing appliance (TS1).



Temperatures inside the hot food (NS4).



Temperatures and humidity monitoring (lobby) (LS1).



Product simulation sensor (PS7).



Cooling box door sensor (DS1).



All these sensors visible online in SYNSTORES application.



Base unit and external sensor (EB2).



Penetration sensor for core temperature (NS4).

SYNSTORES application

From general overview of groups of stores to the details of equipment.

HRS Seznam					Skupiny	Provozovny Uživa	telé Odhlásit
Filtr: albert x 198		DS LS 571 194	Bez signálu: 6	Mimo limit: 424	Alarm dveři: 28	Odstaveno: 110	Servis: 49
Albert 552 Test chlazení - Pardubice ID (1999) Albert Test chlazení		DS LS 0 0	Bez signálu: O	Mimo limit: 0	Alarm dveli: 0	Odstaveno: 4	Servis: 2
Albert Beroun 691 (F) 2021	TS 76	DS LS 9 2	Bez signálu: 1	Mimo limit: 4	Alarm dveři: 0	Odstaveno: 4	Servis: 0
Albert Bilina 830 (C) BOXY 2022	TS 12	DS LS 17 0	Bez signálu: O	Mimo limit: 0	Alarm dvefi: 1	Odstaveno: 0	Servis: 0
Albert Bilovec 342 (C) 2021		DS LS 4 2	Bez signálu: O	Mimo limit: 4	Alarm dveli: 0	Odstaveno: 0	Servis: 0
Albert Blansko Nádražní 182 (D) 2022		DS LS 5 3	Bez signálu: O	Mimo limit: 6	Alarm dveli: 0	Odstaveno: 0	Servis: 0
Albert Břeclav Hraniční 363 (D) BORY 2022	TS 6	DS LS 7 0	Bez signálu: O	Mimo limit: 1	Alarm dvefi: 0	Odstaveno: 0	Servis: 0
Albert Brno 162 (F) 2020	TS 131	DS US 15 3	Bez signálu: O	Mimo limit: 0	Alarm dveří: 0	Odstaveno: 2	Servis: 0
Albert Brno Ceji 814 + rozvoz (C) 2021	TS 87	DS LS 21 4	Bez signálu: O	Mimo limit: 6	Alarm dvefi: 1	Odstaveno: 6	Servís: 0
Albert Brno Javor 710 (D) 2020	TS 41	DS LS	Bez signálu: 0	Mimo limit: 3	Alarm dvell: 0	Odstaveno: 3	Servis: 0

The retail chain stores full overview - number of sensors, number of equipment out of temperature limits, number of stores with doors opened (cooling / freezing chambers), number of service calls, indication of service technician on the stores.

G HRS	Seznam Přehled	Reporty Události	Souhrn		Skupiny	Provozovny Uživate	lé Oshlásit
Vie	Bez signálu: O	Mimo limit: 4	Narm dvefi: 4	Odstaveno: 3	Servis: 0	Kritická porucha	Otevîlt vie 📎
Meaziel vitriny	-2318 (34)						 V
polovysoké La	hûdky 0+5 (4)						V
polovysoké (4)							♥
Ovoce zelenin	a +2+8 (3)						V
polovysoké m	aso 0 +4 (10)						V
Dorty +1+8	(1)						v
Mopro +2+8	8 (25)						0 📀
Boxy zázemi (1	13)						0 📀
Obslužné pult	y maso a ryby (3)						V
Lahûdky, Delik	atesy +2+8 (7)						v
Uzeniny 0+	i (8)						•
	lednice (30)	_	_	_	_	_	0 📀

Store overview - where the Store Manager can see the total overview of the equipment groups with indication of temperature and door alarms.



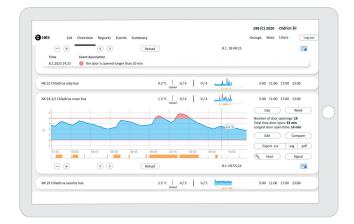
Detail view at the single equipment, you can see the temperature, door opening, defrost time field, door opening statistics...

Vše Bez signálu: 0 Mimo limit: 3	Alarm dveřl: 0 Odstaveno: 3 Servis: 0 Knitická porucha Zavitit vše 🐼
Bony (6)	•
Fresh Bistro (2)	•
Mopro mléčné (5)	Q
Polovysoké vitriny (2)	0
Dorty (1)	<u>ی</u>
Obslužné pułty (4)	Teplota Limit Hygiena Průběh Časy defrostů 📵 🙆
N 27 Sýry Spodní díl	11.9°C 0/8 2/8 0.00 6:00 12:00 18:00
N 27 Uzeniny, lahůdky horní díl	180°C 0/5 0/5 0.00 6:00 12:00 18:00
N 28 Sýry spodni díl	5.6°C 0/8 2/8 3:00 9:00 15:00 21:00
N 28 Uzenim; lahůdky horní díl	7.5 10/5 0/5 3:00 9:00 15:00 21:00

The store view - indication of the equipment having temperature issues.



Detail of the equipment with the problematic temperature.



Detail of the cooling chambers with opened doors above the time limit.

SYNSTORES – online **energy consumption** reporting system

Supervise the energy consumption of all your appliances

With our special SYNSTORES HW components for monitoring of energy consumption you can monitor online every single unit in your store - cooling and freezing cabinets, hot counters, combi ovens, any of piece of equipment as dishwashers or slicing machine. With our IQ31 unit you can monitor and see online also the central cooling and freezing unit. You have the total store energy consumption monitored online but also in real detail.

In combination with temperature monitoring you have absolute perfect overview of your store performance based on real-time data.

HW components for energy monitoring









O Monat 1.11.2022-2.11.2022 V

Woche
 31. 10. 2022 - 2. 11. 2022

4.0 °C 0/8 0.24 kW 19.5 kW

17.1 °C -/-18

0.7 °C 0/4 0.18 kW 6.3 °C 0/8 0.29 kW

-21.2 °C -/-18

3.5 °C 0/4 0.30 kW

3.2 °C 0/5 0.27 kW

14.57 kW 1182.7 kWh

0.28 kW

14.57 kW 1182.7

0.0 1/2

0.0 kV

28.1 kWh

28.6 kWh

27.3 kWh

بالغابات المارية

Mar Martin

O Tag 2, 11, 2022

31. 10. 2022 - 2. 11. 2022

RS3 Algida

205 Téstovim

06 Akční zbo

207 Akční maso

7 Ladoice pakiros

ENERGY MONITORING UNIT 400V EMU3

Energy Monitoring	Unit 230	V
EMU1 / EMU1S		

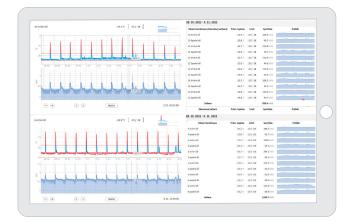
IQC31 measuring and control system

Compare energy comsumption of similar units in different stores



IDENTICAL FREEZING COMBINATION OF 2 PRODUCERS

This is the comparison of 2 equipment types from 2 producers. The same store size and application - combi freezers. Temperature monitored by TS1 temperature and HACCP sensor, energy consumption is monitored by energy monitoring unit EMU1. All values visible online. Temperature measured every 2 minutes. Energy consumption measured every 5 minutes. Statistic available online.



10 days statistic of energy consumption

STORE 1	STORE 2	DIFFEREN	CE
1294,7 KWH	935,4 KWH	359,3 KWH	38,4%

Set up optimal efficiency of the cooling or hot appliance





Designed for monitoring of cooling or freezing plug-in cabinets, coolers, counters.





Designed for monitoring of cooling or freezing or hot plug-in cabinets, coolers, counters (230V).





Designed for monitoring of cooling or freezing or hot plug-in cabinets, coolers, counters, combi ovens, all kind of equipment (400V).





Designed for monitoring of cooling or freezing cabinets, chambers connected to central unit.

Example from the retail temperature & energy – effect of doors installation

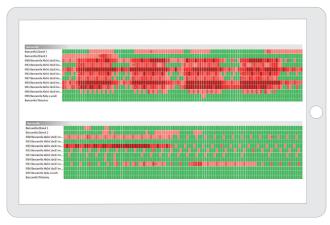


4 plug in cooling cabinets before and after sliding lids installation.

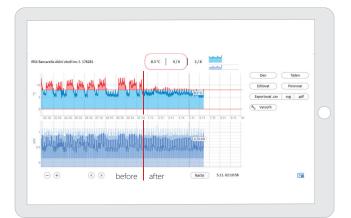
There is huge impact online visible and measurable based on real data. Temperature measured by SYN-STORES every 2 minutes, energy consumption every 5 minutes.

EXAMPLE FROM THE RETAIL

- temperature & energy
- effect of doors installation



Performance overview before / after.



Temperature performance before / after.

17. 10. 2022 - 23. 10. 2022					
Měření spotřeb elektrické energie	Prům. teplota	Limit	Klidový příkon	Spotřeba	Průběh
IRS4 Bancarella Akční zboží inv. č. 178281	8.9 °C	0/4	0.40 kW	99.3 kWh	all water the state of the stat
IRS3 Bancarella Akční zboží inv. č. 178282	5.4 °C	0/4	0.38 kW	92.1 kWh	markey markey markey markey
IRS2 Bancarella Akční zboží inv. č. 178285	5.9 °C	0/4	0.23 kW	65.9 kWh	
IRS1 Bancarella Akční zboží inv. č. 178278	6.7 °C	0/4	0.38 kW	91.8 kWh	may and a many a many and a many a many a man
Celkem			1.39 kW	349.2 kWh	
Celkem			1.39 kW	349.2 kWh	
	Prům. teplota	Limit	1.39 kW Klidový příkon	349.2 kWh Spotřeba	Průběh
7. 11. 2022 - 13. 11. 2022	Prům. teplota 5.6 °C	Limit 0/8			Prübäh
7. 11. 2022 - 13. 11. 2022 Měření spotřeb elektrické energie			Klidový příkon	Spotřeba	
7. 11. 2022 - 13. 11. 2022 Měření spotřeb elektrické energie IRS4 Bancarella Akční zboži inv. č. 178281	5.6 °C	0/8	Klidový příkon 0.39 kW	Spotřeba 83.8 kWh	IIIIIIIIiiiiiiiiiiiiiiiiiiiiiiiiiiiiii

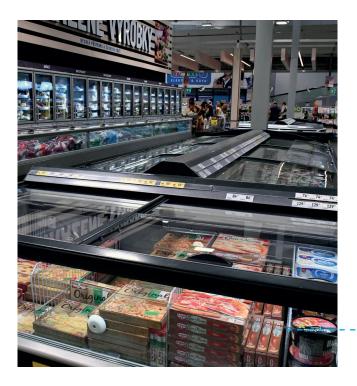
Energy performance before / after.

SYNSTORES – online equipment performance reporting system

Take control over each store equipment performance

EVALUATION & COMPARISON OF:

- stores performance
- store equipment performance
- service performance



Use the data coming from equipment every **2 minutes** to see online the performance and its history to evaluate the store or each single piece of equipment functionality and performance of:

- Temperature
- Energy consumption
- Efficiency, performance
- Service calls and KPI's

Based on real data.

And compare it. By producer, brand, type, service partner.



Visualized comparison of temperature curves helps you to compare and evaluate the performance of the equipment.



Visualized Performance of Equipment on store Monthly Statistic - View.

					Oldfich	ša
Эн	RS Seznam			Skupiny	Provozowny Uživate	le Odhäst
pore	vnání provozoven		Servisel statistica	Perovnání provozoven Dditovat Š	ablony Typy poruch Ser	visni organizace
oro	vnání podle teplot mimo limit		Po	rovnání otevřených dveří		
	Jméno *	Hodnoceni *		Iméro *	Hadnaceni *	
1	Albert Česká Upa 351 (C) 2020	187	1	Albert Karrina 686 (C) BCKY 2022	502 (5)	
	Albert Ostrava Poreba Opavská 826 (D) 2022	174	2	Albert Chodov 198 (C) 2020	370 (3)	
3	Albert Ostrava tř. 30.dabna 381 (D) 2021	154	1	Albert Vietfin 183 (F) 2021	283	·····
4	Albert Praha Chrpa 611 (F) 808Y 2022	143	4	Albert Moranski Budiljovice 126 2021	(C) 278	
	Albert Praha Spofflov 572 (F) 2021	192	5	Albert Flzeň Písecká 192 (C) 8000 2022	221 (1)	~~~
6	Albert Praha Ziatý Andél 583 (F) 2022	92	6	Albert Praha Chrpa 611 (F) BORY	2022 203 (1)	
	Albert Prostějov 821 (0) 2021	90	7	Albert Zaojmo Videňská 347 (F) I 2022	CBY 142(1)	
а.	Albert Chrudim 670 (0) 2020	85		Albert Webil 851 (0) 2021	121	
9	Albert Ústi nad Orlici 515 (C) 2020	83		Albert Česká Lipa 824 (C) 8087 2	322 121(1)	
10	Albert Most 695 (C) 2022	#2		Albert Olomous Olomouská 201 (BCKY 2022	F) 118(1)	
11	Albert Most 813 (F) 2022	81	11	Albert Fraha Letifany 860 (F) 808 2022	Y 118	
12	Albert Teplice Nikladni 810 (C) 2022	79		Albert Hodonin 673 (D) BOIN 200	2 109(1)	
13	Albert Praha Libeñia 750 (C) 808Y 2022	72	1	Albert Nový Jičin Tabačka 835 (C) 2022	BCRY 102(1)	

Store Performance Comparison Sheet Helps you to make very fast and addressed corrective actions.



SYNSTORES – online **service process** reporting system



On line overview of service operations on the store

EASY SERVICE TASK

Easy to initiate the service call - just by one click you call the service directly to specific piece of equipment in particular store - saves the time of your store personal and speed up the identification for service partner.

ON-LINE IDENTIFICATION OF SERVICE STAFF IN THE STORE

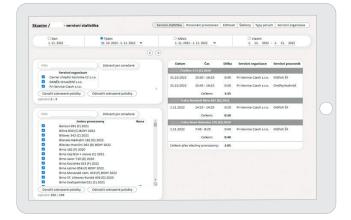
Using the Service TAG the system automatically identifies that the service technician XY arrives and after service call leaves the store, the time of service technician spent in store is recorded and reported automatically.

BEFORE/AFTER SERVICE CALL EQUIPMENT STATUS MONITORING

The status of the equipment even after the service call is monitored and easily visualized in the application. It is very clear for system and for store personal to identify that the service call was succesfully solved and the temperature is OK or not. Even automatical escalation is possible.

AUTOMATIC TIMESHEET REPORT

All the records about the service calls from history and performance of the technicians and service organization on the store are reported in the application easily by one or two clicks.



SERVICE STATISTICS

Indentificator tag identifies automatically the Service Technician when working in the store on a service call and reports this to store manager and records it in the SYNSTORES application.



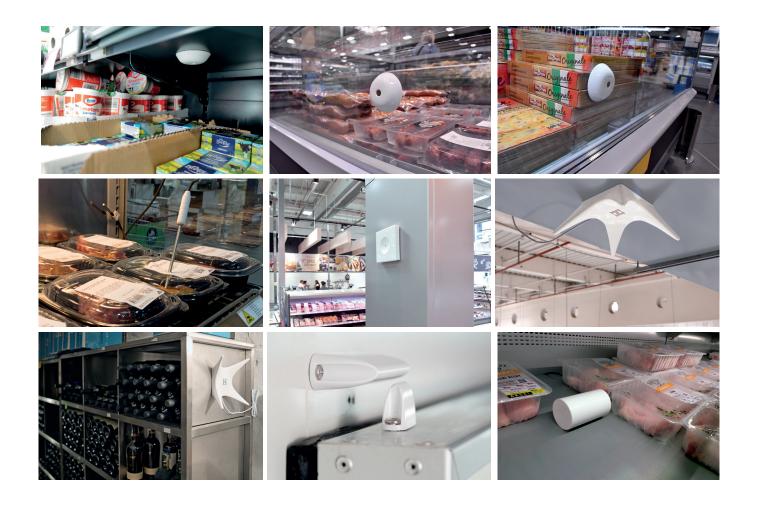
Service Call - visible as red line under the temperature curve.



Improvement visible after the Service Call finished.



Reference





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