



OrionM2M

LoRa Alliance Member

MONITORING OF COVID-19 VACCINES STORAGE AND TRANSPORTATION

- access control to the refrigerator
- temperature and humidity monitoring
- power supply control

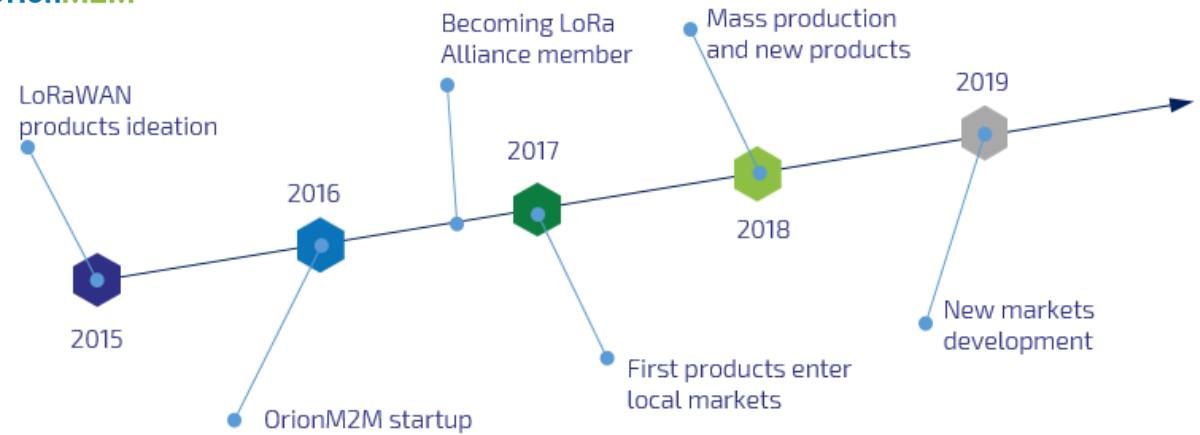
OrionM2M[®] solution for remote monitoring and prompt notification of changes in temperature and humidity in the chamber of refrigeration equipment intended for pharmaceuticals

ABOUT COMPANY

OrionM2M® is a fully integrated developer and manufacturer of End2End IoT solutions based on LoRaWAN® technology.

We design all our products in-house based on LoRa Alliance® specifications.

All software and hardware equipment is fully compliant with any LoRaWAN® network.



FIGURES AND FACTS

- 30+ engineers, production team, software developers and executives;
- 100+ active and completed projects with utilities and city municipalities in 5 countries;
- 1x HQ and production facility in the heart of Eurasia – Almaty, Kazakhstan (2019 – new branch office in Moscow, Russia and production facility in Estonia);
- ISM 868 Europe, CIS, Russia frequency band supported (AS923, NZ/AU915, US915 are in development stage);
- We are highly regarded by press and media with our participation in local and international industry events from CES to UtilityWeek;
- With CE certification and outsourced manufacturing contracts in Baltic states in 2019 we will be able to enter European market and boost production output for global supply.



Production



The capacity of the enterprise is over 120,000 subscriber devices per year



Availability of certificates and permits within the EAEU, as well as ST-KZ certificates, CE (European Certificate of Conformity)

Participants of international exhibitions and conferences



Our partners

NEKTA



ҚАЗАҚТЕЛЕКОМ

ЭР-ТЕЛЕКОМ



Ростелеком



ОПТУСТИК ЖАРЫК



ЭСКО

3Э



АЛМАТИНСКИЕ ТЕПЛОВЫЕ СЕТИ



Алматы Су



AURORA mobile technologies



smartek



ТЕПЛОВОДОМЕР



АСТАНА СУ АРНАСЫ ИМК
ТАЛҚАСТАНА СУ АРНАСЫ



АСТЕЛ 25
Комплексные решения связи



building connected future



REMOTE MONITORING OF TEMPERATURE AND HUMIDITY

Temperature monitoring and geolocation of refrigerators



Monitoring of pharmacy refrigeration chambers



Monitoring of warehouse and commercial refrigeration equipment



RADIO MODEM
ORION METER



OrionM2M® Network



24/7 temperature and humidity control



Archive of temperature readings change history (hourly for 62 days)



SMS, e-mail notifications



Personal account of the trading network



Distributor's personal account

REMOTE MONITORING OF TEMPERATURE AND HUMIDITY



SYSTEM FUNCTIONS

- Real-time monitoring of refrigeration chamber temperature parameters
- Automatic notification when temperature changes above the set threshold
- Logging of events both at the device level with a deep archive and in the system itself
- Analytics throughout the network for the required period with the formation and unloading of reports
- Accounting for operating time and downtime of refrigeration equipment
- Locations map of refrigeration chambers



TASKS AND APPLYING

- Product storage quality control
- Quality control of transportation and delivery of products
- Ensuring control over the use of refrigerators installed in retail outlets
- Rapid response to equipment failures and power supply
- Reduction of financial losses and image risks from product damage



ADVANTAGES OF SOLUTION

- Modern international technology LoRaWAN®
- High reliability and availability of server applications backup
- Scalability and self-diagnostics of the system
- Short terms of implementation and return of investment
- Easy to add and connect new devices to the network
- 1 year warranty on all equipment and flexible software licensing system including SaaS.



REMOTE MONITORING OF TEMPERATURE AND HUMIDITY



Radio modem ORIONMETER

- It is used for installation in refrigeration chambers in rooms (it is established both inside and outside the refrigeration chamber)
- It works on ISM 868 frequency in LoRaWAN® networks
- Up to 5 years of autonomous operation
- It can be installed in basements
- It provides control of the power supply of the refrigeration chamber
- Possibility of access control (door opening)

AMR – monitoring and control software from OrionM2M®

AMR | a.sagnayev | Русский

Мониторинг

ИИН: Лицевой счет: 10590 | Метка: 35 (ГККП ясли сад №35 "Сауле", мкр. Сауле) | Адрес: Шымкент-цифровизация ЖКК, Азаттык, 35 (ГККП ясли сад №35 "Сюле", мкр. Сауле)

Электричество | Вода | **SENSORS** | Информация | Активные тревоги | Настройки

датчик) Температура (датчик) | Температура (датчик) | Влажность (датчик) | Температура (датчик) | Температура (датчик) | Сводный отчет

Термодатчик LA-IP-I2C, 25 | Термодатчик LA-IP-I2C, 23 | 25 | Термодатчик LA-IP-I2C, 24 | Термодатчик LA-IP-I2C, 22

За месяц | Таблица | Настройки | 11.2020

Актуально на 2020-12-10 16:51:56

Период	Влажность (датчик). 22	Влажность (датчик). 24	Влажность (датчик). 23	Температура (датчик). Термодатчик LA-IP-I2C, 25	Температура (датчик). Термодатчик LA-IP-I2C, 23	Влажность (датчик). 25	Температура (датчик). Термодатчик LA-IP-I2C, 24	Температура (датчик). Термодатчик LA-IP-I2C, 22
01.11.2020	0.4	0.1	0.8	-0.9	-1.1	0.2	-1.4	-1.1
02.11.2020	-0.3	-0.3	-1.5	2	2.1	1.6	3	2.7
03.11.2020	-1	-0.9	-0.1	0.5	0.5	-2.6	-0.3	0.2
04.11.2020	0.6	1.5	0.7	-0.5	-0.2	1.3	-0.1	-0.3
05.11.2020	-0.9	-1.5	0.7	0.3	-0.1	0.2	0.3	0.6
06.11.2020	0.9	0.8	-0.7	-0.5	-0.1	0.3	0.3	0.8
07.11.2020	0.2	0.9	1.8	-0.9	-1	-1.3	-1.2	-1.2



Temperature (sensor)
Thermal sensor LA-IP-I2C-23



Humidity (sensor)
22



Consolidated report



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LLP «Orion System»
www.orion-m2m.com

+7 (495) 145 96 99
+7 (727) 312 30 00
info@orion-m2m.com

