

TempNet®

Controlmatic Oy

Company and product information

Controlmatic
www.controlmatic.fi



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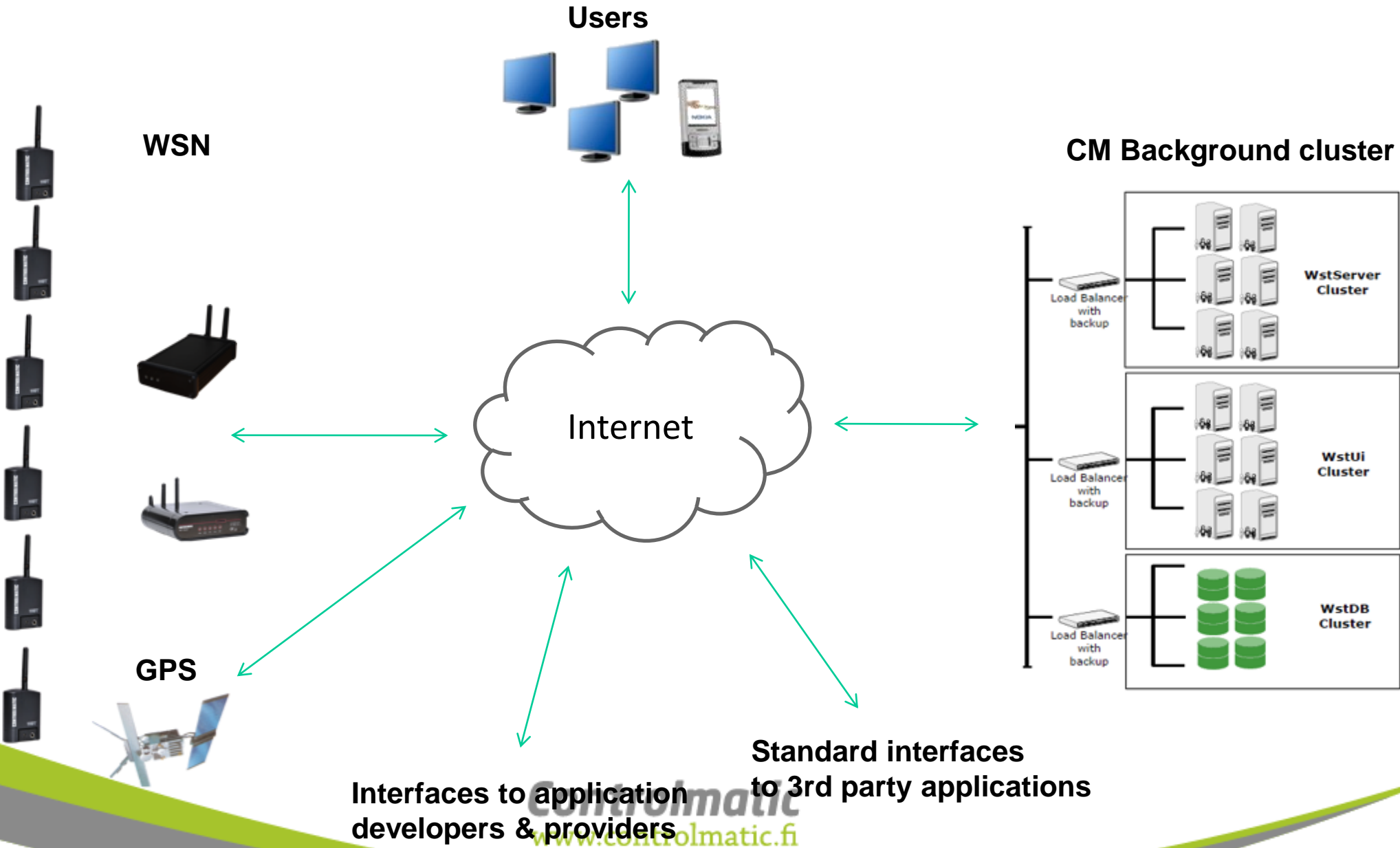
- Forerunner and innovator in mobile and wireless sensor technology
- Controlmatic designs, develops and deploys flexible, customer-oriented wireless sensor network solutions
- ISO 9001 Certification (Det Norske Veritas, 2008)
- Solutions: TempNet® and TempNet Mobile™
 - First company to offer a solution that conforms with the EU-standard for wireless temperature measurement to food supplies (EU-standards EN 12830 , EN 13486)
 - Certified by Evira (Finnish Food Safety Authority)



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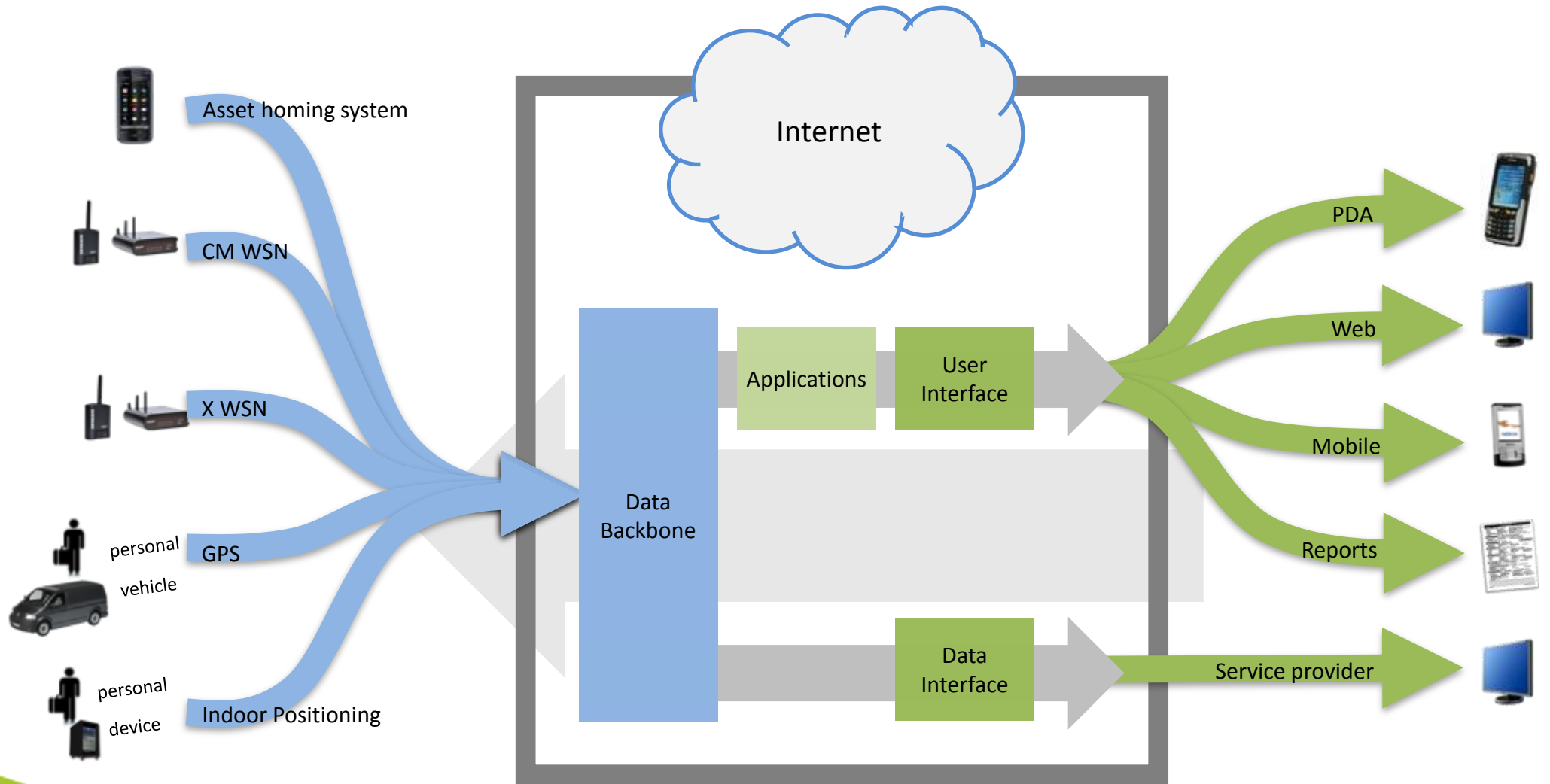


Controlmatic Product Platform



CM Frame

Locationing is a basic service enabled by Controlmatic's frame – both input and output are flexible



TempNet[®]

All measuring points, all locations, under one system

Receiving

Storage

Preparation

Shipping/ sales

Location A



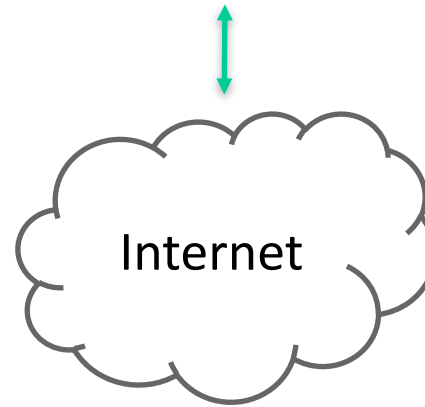
Location B



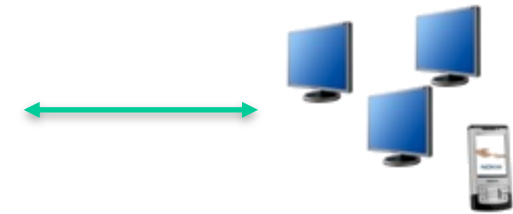
Storage A



Transportation



Internet



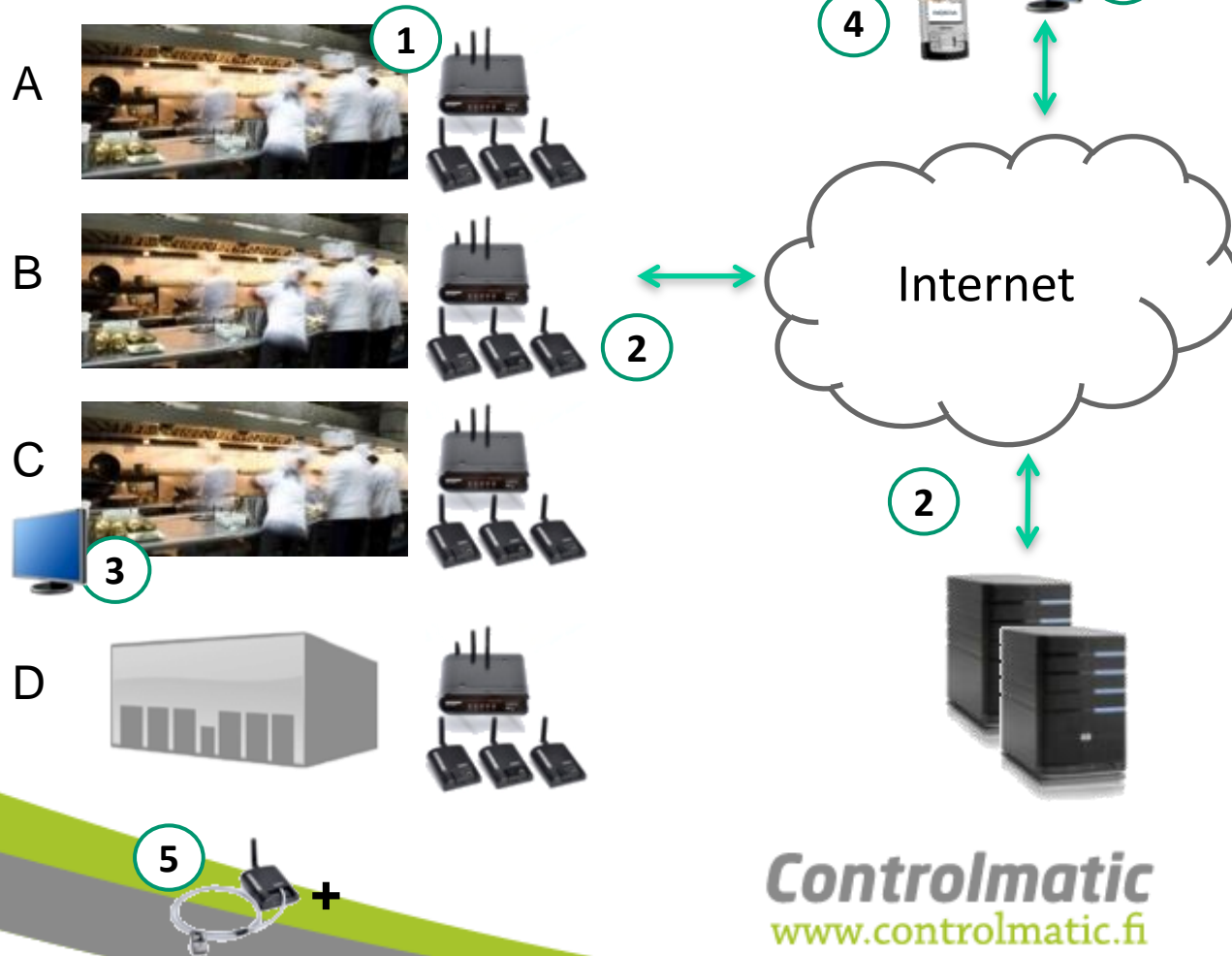
User can access, analyze ,
and comment on all
information online and can
receive text message or
other alarms if pre-set limits
are breached.

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TempNet[®]

Certified
by
Evira

- Controllable over web-based browser
- Automatic alarms and reporting
- Real-time temperature figures
- Work-time and -type tracking
- Administrator capabilities over users
- System maintenance



- ① The devices record temperature every 15 minutes and transfer the data to a base station located on premise. Recording frequency can be adjusted to fit needs.
- ② The base station sends the encrypted data over the internet (GPRS or Ethernet) to Controlmatic's server cluster or to a server operated by the client.
- ③ Users can freely retrieve data through a browser and can specify time intervals for reports that can also be viewed in graph form. The service is accessible anywhere where there is an internet connection.
- ④ The system sends text message alerts if acceptable temperatures are surpassed. Separate acceptable temperature ranges can be set for each sensor via the web interface.
- ⑤ The system is controlled via a web based interface. Limited access rights to the interface can be given for e.g. audits. The devices are easy to install or to add to an existing system. Various types of sensors can be added to the system, e.g. wireless work-time or -type trackers.

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Tempnet® Handy



- Data collection
 - Temperature measurements
 - Manual feed
 - Bar code & – RFID
- 2 Way data transferring
 - Remote use for Tempnet
 - RF interface
 - Data interfaces
- Controlling
 - Feed from 3 rd party software
 - Customer tailored
- Specs
 - IP65 (STD55)
 - Uses all standard measuring devices
 - 3 ” Display (2 color)
 - Long operating time



Tempnet® Handy

Directives and standards

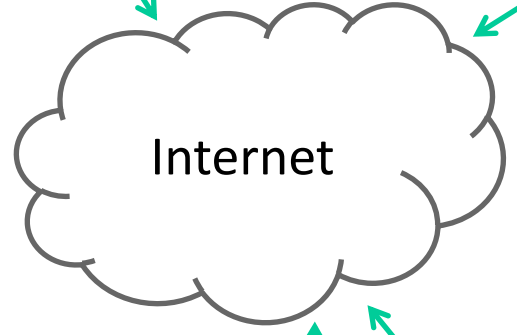
- **EN 13485:** Thermometers for measuring the air and product temperatures for the transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream. Tests, performance, suitability.
- **EN 50081-1:** EMC compatibility – Generic emission standard, part 1
- **EN 50082-1:** EMC compatibility – Generic immunity standard, part 1
- **EN 60068-2-27:** Basic environmental testing procedures, part 2
- **EN 60529:** Degrees of protection provided by enclosures
- **EN 61010-1:** Safety requirements for electrical equipment for measurement, control and laboratory use, part 1
- **EN 13486:** Temperature recorders and thermometers for transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream – Periodic verification
- **1999/5/EC:** Directive on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity
- **ETSI EN 300220-1:** Electromagnetic compatibility and Radio spectrum Matters (ERM), SRD – part 1
- **ETSI EN 300220-3:** Electromagnetic compatibility and Radio spectrum Matters (ERM), SRD – part 3
- **EN 301489-1:** Electromagnetic compatibility and Radio spectrum Matters (ERM), EMC- part 1
- **EN 301489-3:** Electromagnetic compatibility and Radio spectrum Matters (ERM), EMC, SRD - part 1
- **IEC EN 61010-1:** Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements
- **EN 60335:** Household and similar electrical appliances. Safety. Part 1: General requirements

TempNet Mobile®

- Controllable over web-based browser
- Automatic alarms and reporting
- Real-time temperature figures
- GPS enabled capabilities
- Work-time and -type tracking
- Administrator capabilities over users
- System maintenance



Real-time temperature

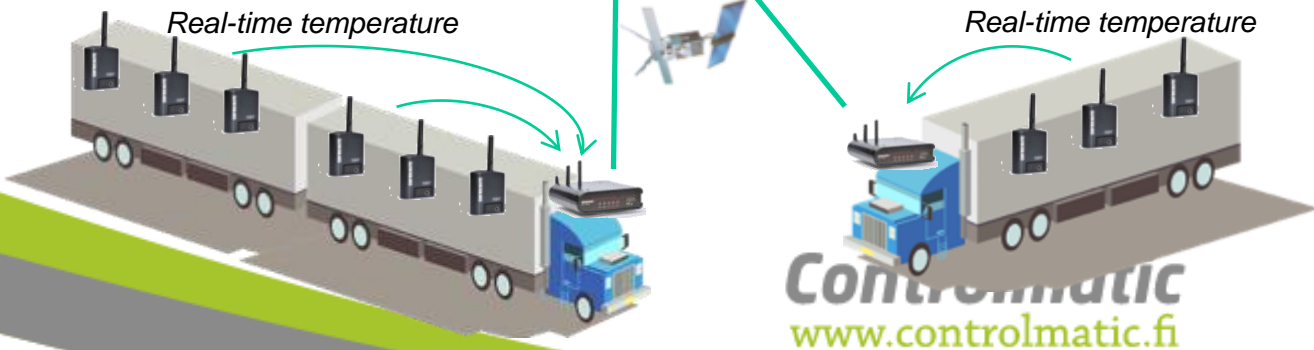


GPS - locating



Real-time temperature

Real-time temperature



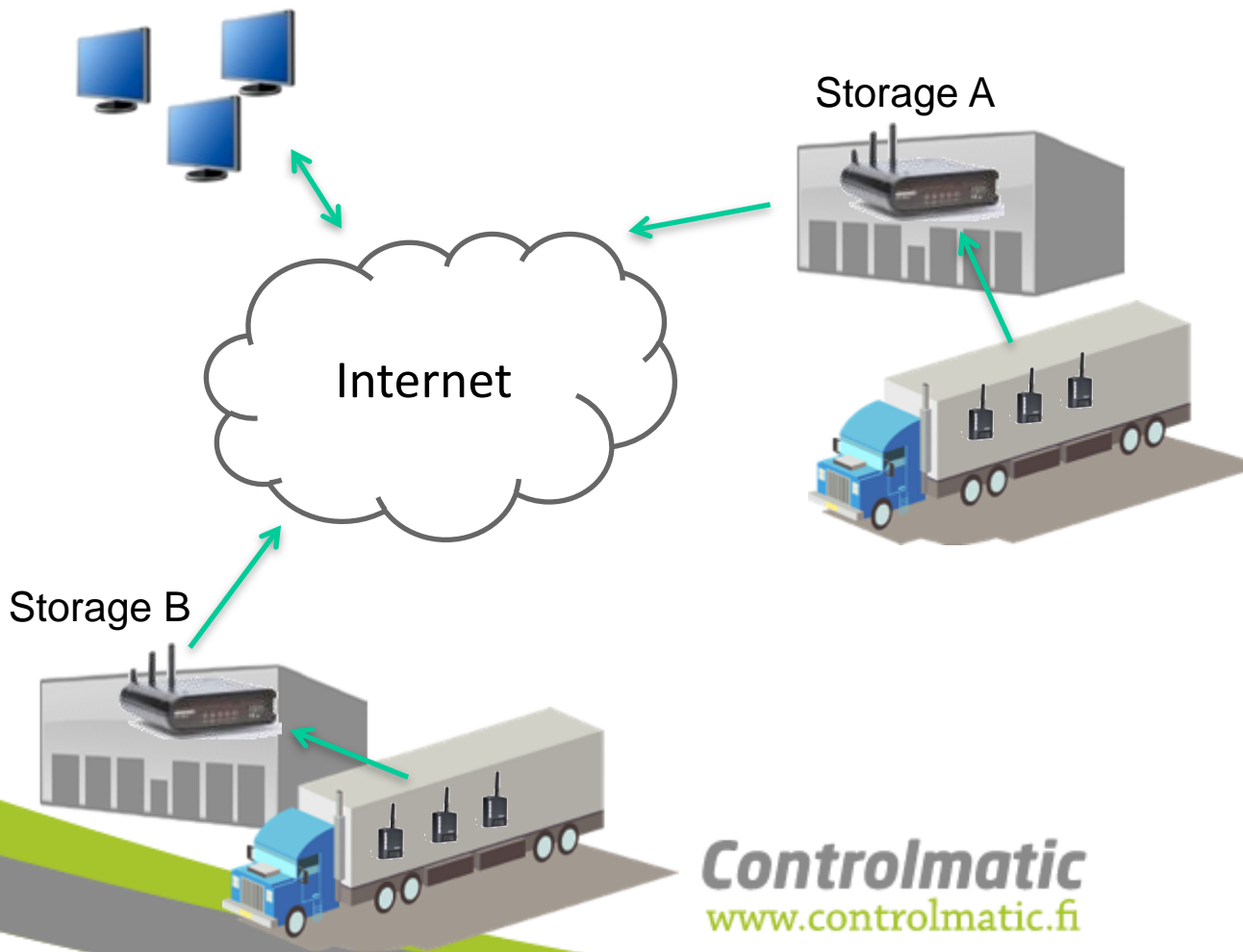
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- 1 Devices installed in trucks and containers collect location and temperature information and transfer the data wirelessly to the base station in the cabin.
- 2 The base station sends the encrypted data via the internet (2G or Ethernet) to Controlmatic's servers or to a server operated by the customer.
- 3 Users can freely retrieve data through a browser and can specify time intervals for reports that can also be viewed in graph form. The service is accessible anywhere where there is an internet connection.
- 4 The system not only determines the location of each unit, but also allows for viewing of routes taken, distance traveled, customer visit time, in both real-time and historic form.
- 5 The system is controlled via a web based interface. Limited access rights to the interface can be given to users for e.g. audits.

The devices are easy to install or to add to an existing system.

Automatic Temperature Recording and Data Transfer

- Controllable over web-based browser
- Automatic alarms and reporting
- Real-time temperature figures
- Work-time and -type tracking
- Administrator capabilities over users
- System maintenance



- 1 The devices record temperatures every 15 minutes and transfer the data to a base station located on premise. Recording frequency can be adjusted to fit needs.
- 2 Temperature sensors automatically transfer the recorded information when they arrive in proximity of specified base stations.
- 3 The base station sends the encrypted data over the internet (GPRS or Ethernet) to Controlmatic's server cluster or to a server operated by the client.
- 4 Users can freely retrieve data through a browser and can specify time intervals for reports that can also be viewed in graph form. The service is accessible anywhere where there is an internet connection.
- 5 The system is controlled via a web based interface. Limited access rights to the interface can be given for e.g. audits. The devices are easy to install or to add to an existing system. Various types of sensors can be added to the system, e.g. wireless work-time or -type trackers.



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