

SPECIAL REPORT

Norrköping is getting smarter with IoT



Norrköping has been using Infracontrol Online since 2010, and last year it began connecting various types of IoT sensors to our cloud service for things like monitoring water levels.

More and more municipalities are discovering the possibilities the Internet of Things brings. The new technology allows the use of cheap, power-saving, wireless sensors for measuring e.g. water levels, air quality, or detecting faults in technical systems. But to really make a difference, they must be connected to a platform, which is well integrated into the operation, so that readings and alarms can be taken care of as a natural part of the municipality's other technical administration. Norrköping is a good example of how to extract the greatest possible benefit by connecting its IoT sensors to Infracontrol Online.

Olle Classon is systems administrator in Norrköping's municipality and he tells us that monitoring technical systems has long formed a natural part of the operation, but that the internet-of-things opens up entirely new possibilities:

- *By monitoring alarms from traffic signals, ticket machines and parking installations, we're able to detect faults at an early stage and remedy them before disruptions occur. The IoT sensors are small and battery powered, which makes them easy to position and install for e.g. monitoring water levels. Their low cost means we can have many metering points. But no matter where alarms or readings come from, the important thing is to gather them into Infracontrol Online so we can draw natural benefit from them in our daily operations.*

New technology means new opportunities

Norrköping has a LoRa network, which is a type of LPWAN. LPWAN stands for Low Power Wide Area Network, and is the standard for battery-powered sensors in regional, national or global networks. The network provides IoT devices with the ability to wirelessly transmit data to a host system. Jonas Bratt is Infracontrol’s IoT solutions specialist:

- LPWAN allows sensors to be small and energy efficient. This makes it possible to monitor almost anything. This might mean water levels, stolen items, temperatures, open doors or hatches, air or water quality, traffic flows, how well plants are doing and much, much more.

Infracontrol has developed a number of ready-to-go IoT solutions that make getting started easy. It can be sensors for various applications such as monitoring water levels and removed/stolen objects, with functions for measurement data and alarms at Infracontrol Online.

- These new abilities to measure and detect faults mean it’s all the more important to keep it all together and draw benefit of the information in the municipality’s operation, says Olle Classon in Norrköping.

Growing need for a Smart City platform

New types of sensors alone are not enough to make a city smart. Someone also has to take care of the information and make sure it gets put to good use.

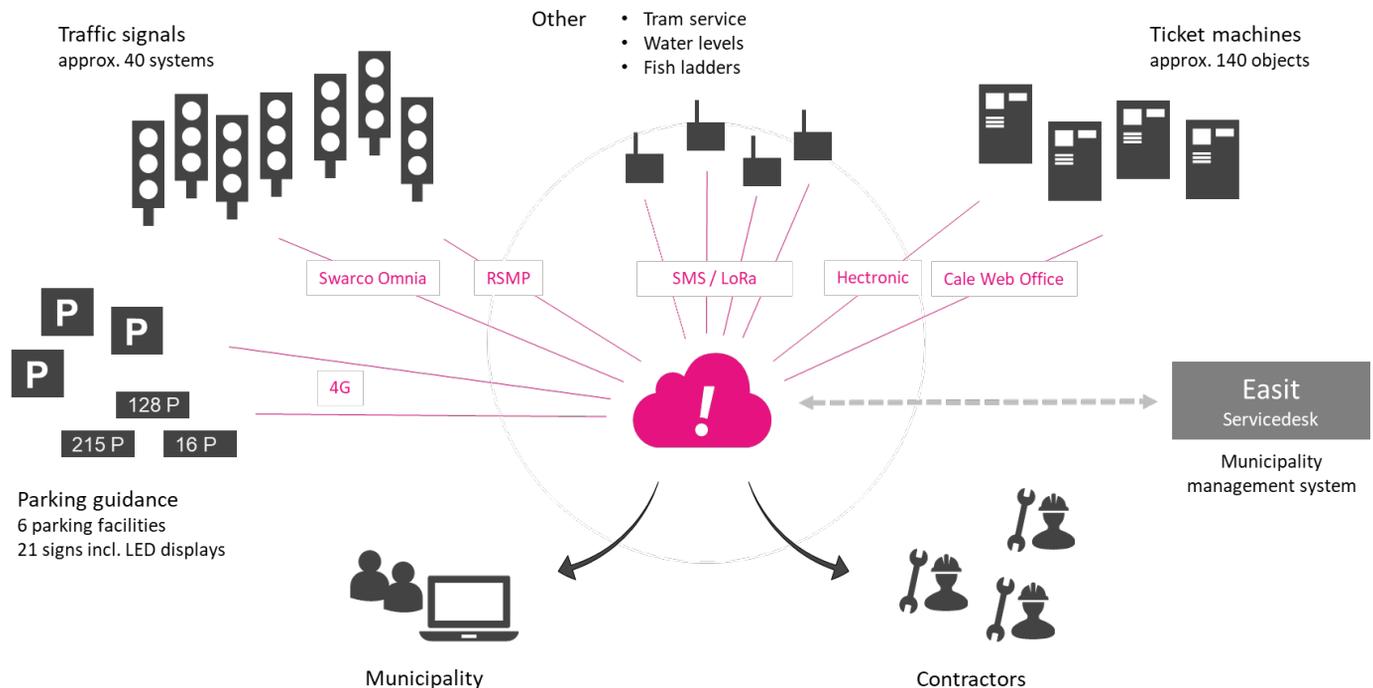
- By connecting the sensors to Infracontrol Online, we gain full control from the detection of faults and until they are remedied and reported.

IoT devices and communication solutions are provided by many suppliers and comprise different technologies with a variety of functions and architectures.

- That is why there is a fast growing need for independent Smart City platforms like ours, to which every type of sensor can be connected, and which are accessible by both infrastructure owners and maintenance personnel, says Jonas Bratt.

In addition to sensors and the functions in Infracontrol Online, there is naturally also a need for access to an LPWAN network. Such networks are already installed in many municipalities; if not they’re easy to arrange.

- Just ask any of our partners like Blink Services, who built the network in Norrköping, Stadshubbsalliansen or Iioote, says Jonas Bratt.



Norrköping is becoming a smarter city through interconnected and integrated monitoring of its technical systems.

Want to know more?

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