CASE STUDY
Cramo*, Yanzi* & Intel
Intel® Atom™ Processor

Delivering a Remote-Access Solution for Construction Companies

The Yanzi*/Cramo* system is used by construction companies to monitor, maintain and manage constructions sites—from lifts, elevators, heating systems, energy consumption to motion detection and surveillance (for the management of many assets across large areas and multiple levels).

yanzi networks

"New regulations stipulate that construction companies must monitor and report the energy they use as buildings are being built. Therefore it has become critically important that the customer can accurately monitor the electricity they truly use. This solution allows them to be on top of it all—even when not physically there."

– Lars Celsing
Region Manager
Cramo AB

Challenges

Construction sites, when unchecked, can experience weather-related issues that can cause very costly delays in construction. Construction companies typically work daytimes and weekdays but the weather works 24/7. Buildings in progress can experience frozen pipes or unintentional openings of doors and structures —allowing unwanted elements into the building that cause damage. Humidity alone can cause irreparable damage to a site, costing developers and construction companies a great deal of money and resulting in significant construction delays.

Need for technological solutions that are easy to install, maintain and manage. Construction managers and executives need to simplify their operations to be truly mobile, with plug-and-play deployment that requires little-to-no I.T. knowledge or management.

Need for consolidation of many data points. Construction companies need to have information on the status of physical assets such as lifts and elevators, energy monitoring devices, temperature sensors, smoke detectors and video camera information—all at the tips of their fingers, from all zones and in real time.

The ability to get immediate alerts about potentially costly or dangerous situations (open doors, broken windows, burst pipes) can save big money and reduce the overall effect of weather- or other facility-related incidents on construction sites.

Providing the construction industry low-cost, low-power, and high-performance systems required for remote control and surveillance using video and sensors. Preferably using reliable and always on technology such as Intel® architecture-based systems and four standard communication interfaces: Ethernet, Wi-Fi, 3G/4G network service and 6LoWPAN.

Even as equipment and internal systems become more complex, today's construction companies are under pressure to build more quickly and more cost-effectively. Therefore, the need for solutions to help these firms manage more assets and monitor more areas with less staff has never been more important.

"Being able to have remote visibility into the sites, the cost of energy stabilizes, the equipment turnover is reduced and the staff requirements off hours drop significantly. This solution is invaluable to the customer as they try to maximize the efficiency of a very small staff."

- Roland Johnsson
Manager, Heating
Cramo AB

Leverage technology today

Construction companies are looking for new ways to leverage technology—quickly and easily— and to harness the cost efficiencies provided through technology. Smart phones and tablets have revolutionized many industries, among them, the construction business. The ability to monitor, maintain and manage a building site and its operations from a handheld device is now a reality with the Yanzi Solution, offered by Cramo.

Always on-line, always available

This always on-line, always up-to-date, always available solution has advanced Machine- to- Machine features through a simple user experience. Its high-performance, low-power processors and true plug-and-play deployment includes service, hardware and installation. The Yanzi Solution is typically bundled into an overall construction offering available through Cramo that includes rental equipment, temporary buildings, temporary electricity and heating.

Three clicks is all you need:

Launch App **Login** **Select Site** **You Are There**

This provides the construction foreman or site engineer with real-time information about the site—accessible on a smart phone or tablet (as well as desktop or laptop)—to enable decisions based on hard facts. Combine this with the ability to record up to two weeks' worth of video and you have effectively consolidated the management of all construction operations into a handheld device of the company's choice. After all, a construction site by definition is unfinished. Many of the things you take for granted in a "normal business environment" such as Internet access, computers, real temperature/energy controls, plumbing—are often not available. Now they are, with the Yanzi Solution from Cramo, with Intel smart technology.

Remote Access, Real-Time Monitoring and Reporting Saves Man Hours

Rather than spend precious time and man hours performing manual checks on physical sites, systems, and assets, construction executives can boost profitability and productivity with this solution by managing projects remotely. Remote-access monitoring provides critical information about energy usage and humidity, for example—two mission-critical data points every construction company worries about.

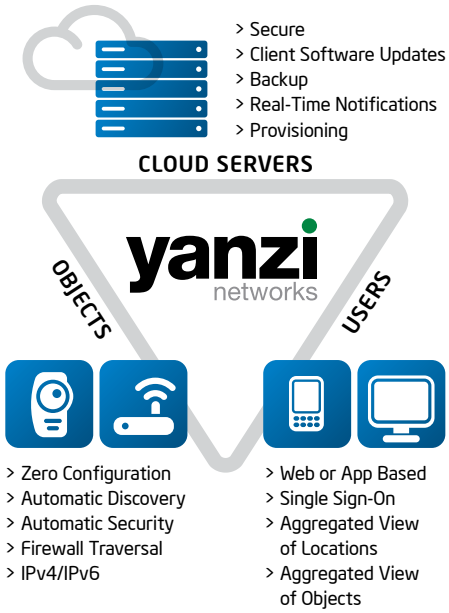
To address this issue, Cramo provides construction companies with an integrated solution for smart phones and tablets, one that delivers the visibility they need to make critical on-the-spot business decisions even when crew or management is not present. The ability to trouble shoot, remotely diagnose, and address issues before they become irreparable and costly is a huge competitive advantage for construction companies that use this technology. It allows them to run a more efficient operation with more predictable costs before and during construction.

Manage sites and assets remotely

This construction solution, available through Cramo Construction or Yanzi, powered by Intel technology, enables the developer or foreman to monitor the construction site—from the office or anywhere in the field. He can watch for signs of problematic weather patterns or conditions, be alerted to unwelcome visitors, and monitor the indoor environment and industrial or rental equipment. In short, this solution helps construction firms manage their assets in ways that will have a strongly positive effect on operations and profitability.

Benefits to this Solution:

- Proactively monitors and manages all aspects of construction operations, including humidity and energy sensors, cameras, smoke and motion detectors, alarms, etc.
- Improves security, safety, and efficiency of construction operations and equipment, while reducing manual tasks and accelerating decision-making
- Controls and monitors energy operations and expenses (heating, cooling, etc.) as well as site operations, resulting in improved efficiencies
- Provides an always on, always accessible view of environment, equipment assets, and personnel
- Easily integrates video surveillance of key operations



"This solution is truly "plug and play". It is simple to install, use and upgrade. You don't need any PC software and everything is web-based and accessible via browser, smartphone, tablet, etc. It gives the customer instant and 24/7 access to all of the operations."

- Lars Celsing
Region Manager
Cramo AB

About Yanzi* Networks

Yanzi Networks, a high tech Swedish company based in Kista, provides solutions for remote access of smart objects based on IPv4/IPv6 and 6LoWPAN technologies. Yanzi is quickly establishing itself as an important player in the development of the "Internet of Things," offering a platform for service providers to deploy a variety of M2M services today.

About Cramo*

Cramo is a service company specializing in short and long term equipment rental services, as well as rental and sales of modular space. Their equipment rental services comprise machinery and equipment rental as well as rental-related services.

As one of the industry's leading service providers in Europe, Cramo operates in Finland, Sweden, Norway, Denmark, Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia and Russia. Since January 2011, Cramo has operations also in Germany, Austria, Switzerland and Hungary under the brand of the fully owned subsidiary Theisen Baumaschinen.

Cramo, through the Cramo Concept subsidiary, offers short and long term rental solutions and services that include machinery, equipment and modular spaces.

M2M with Intel Inside®

Powered by intelligent Intel® Atom™ processors, M2M technologies connect people, devices and systems – turning machine data into actionable information for revenue and profit. M2M solutions based on Intel technologies span the network and use advanced intelligence to enable:

- Smart services
- Optimum performance-per-watt density
- Continuity of architecture across all embedded applications
- Standards-based, off-the-shelf efficiency for lower TCO (Total Cost of Ownership)

For more information about the Yanzi Networks, visit **www.yanzi.se**

For more information about M2M solutions from Intel, visit **www.intel.com/go/m2m**

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