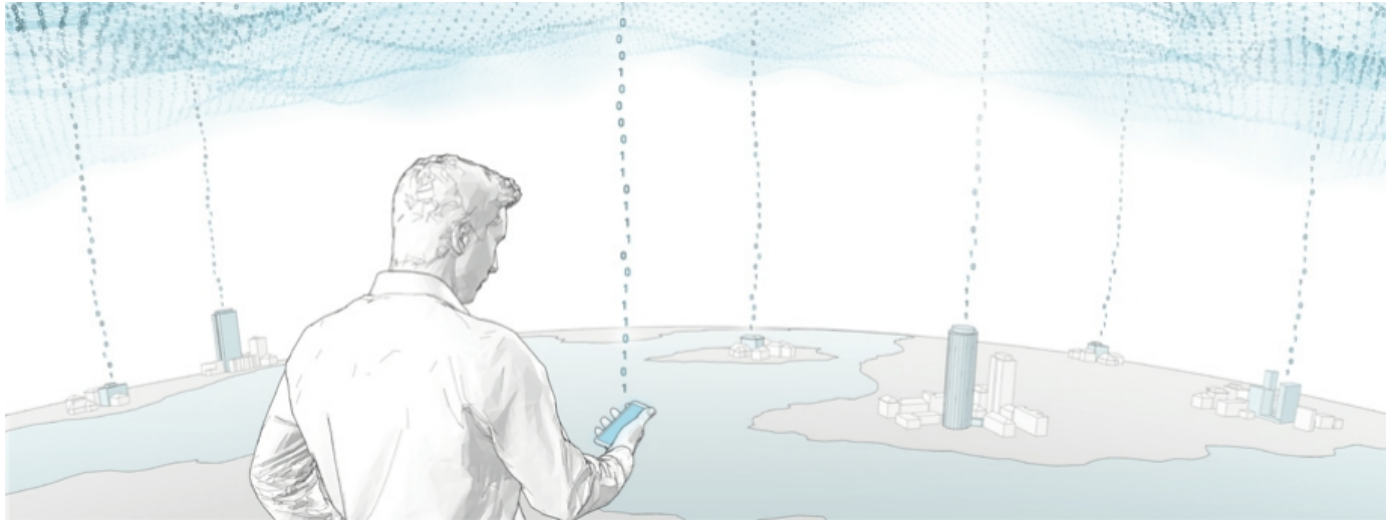


The Magazine



Next-generation building automation

The cloud changes everything

Customers are already reaping the rewards of cloud-based building management solutions today. With next-generation technology lined up, the building automation industry is about to explore the cloud's real potential with remote supervision and new, sophisticated services.

Imagine the following situations: An HVAC manufacturer receives a call from an installer: "We have to manage multiple sites – how can we install cost-effective remote connectivity?" A real estate manager might get a call from a tenant on the first day of a heatwave: "It's far too hot in our offices!" A facility manager for a school district might wonder during the summer break: "Did I remember to turn off the cooling system?"

Today's HVAC manufacturers, installers, builders, and users have to deal with these questions at a time of increasing costs, heated competition, and technological complexity. Remote control systems can provide many answers but they depend on complex IT networks, customized installations, and a high degree of technological capability on-site and on-call 24/7. So far, many smaller businesses and real estate management companies have not been able to take advantage of them.

The avant-garde of cloud systems

Siemens has already developed a solution in the form of Siemens' Synco IC and Climatix IC, two systems that offer remote monitoring of HVAC installations by using Internet of Things (IoT) technology. They are designed for different market segments:

[Synco IC](#) addresses the needs of small and midsized buildings and their facility managers.

[Climatix IC](#) is designed for manufacturers and managers of refrigeration and cooling systems.

They represent the avant-garde of future cloud systems that will greatly enhance the usability, connectivity, and flexibility of building management solutions.

Added value for building administrators

Alessandro Amati has seen these advantages first-hand, as General Manager of Amati Pietro Srl, an HVAC installer and building manager with 50 employees in Modena, Italy. His company installs and maintains heating installations in 600 buildings in and around Modena, almost all of them residential, ranging in size from 4 to 500 units.

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This is a sea change and provides added value to the apartment planner or building administrator.

Alessandro Amati, General Manager of Amati Pietro Srl

“The cloud changes everything,” he exults. Synco IC enables him to show his clients what they want to know, given its customizable interface. “This is a sea change and provides added value to the apartment planner or building administrator,” he notes. He believes that within a decade cloud connectivity will serve as a springboard to the Internet of Things, with cameras as a key element. “When the system is fitted with cameras, we can save more time, allocate our employees more effectively, and add lighting, elevators, intercoms, and security alarms to the heating and cooling systems being monitored today.”

Future applications

Dirk Alexander Rohweder, head of global software business for the Siemens Division Building Technologies, seconds this forecast. “The vision is widespread connectivity in combination with continuously enhanced functionality – for instance remote supervision, dashboards, analytics and machine learning,” he elaborates.

While future applications will be increasingly sophisticated – enabling remote modification, improving energy consumption, and signaling the need for maintenance intervention through an app on your phone or even anticipating maintenance before damages occur – handling will be seamless. “Creating connectivity is easy with our systems,” maintains Rohweder. Installation is almost like plug and play, compared to past systems. It will be inexpensive and easy to install, easy to understand, and will be available across all platforms – desktop, tablet, smartphone.

More answers to more questions

A related advantage is the huge volume of data that is generated. This can be analyzed in real time to identify areas for further cost savings. What are my energy costs doing? Which of my buildings are most energy efficient and why? How to diagnose alarms? And: what trends do I see?

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In the long term, this market will grow.

Mattias Sjöberg, CEO of IV Produkt AB

Solutions providers such as IV Produkt AB based in Sweden sell to installers of HVAC systems internationally. CEO Mattias Sjöberg sees some regions catching on faster than others. But the manifest advantages experienced by early adopters lie mostly in the area of preventive maintenance, which is how he intends to convince more customers to join the Cloud in the future. “We have to take things a step at a time but in the long term this market will grow,” he says.

Deciding what needs to be analyzed and where to achieve cost savings will naturally vary, depending on whether one is a manufacturer, facilities manager, builder, or end user, but all share an interest in optimizing running times and practicing preventive maintenance.

*Claudia Flisi is a Milan-based journalist.
Picture credits: Armin Schieb*

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