

# Mircom Goes Green:

## *The Archetype Sustainable House*

*Vaughan, ON, Canada*



## At a Glance

This Case Study details Mircom's TX3 installation in the Archetype Sustainable House, a revolutionary Canadian project that promotes sustainable building and construction management. This installation marks one of the most environmentally focused projects with which Mircom has been involved. It's also notable as one of Canada's most successful implementations of an integrated intelligent home, with communication and connected lifestyle cloud-based technologies.

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Mircom's  
TX3 InSuite™

“...the Archetype Sustainable House attracts approximately 150,000 visitors annually.”

energy and water efficiency, indoor air quality, non-toxic materials and environmental performance. Homes that are certified through LEED go through a very thorough verification process that includes an Energyguide (ERS) or home energy (HERS) rating, a pre-drywall inspection, and other onsite inspections.

Since its inception in 2009, the Archetype Sustainable House attracts approximately 150,000 visitors annually. The homes provide a learning facility for trades, builders, students and homeowners.

## Challenge

This is the first deployment of Mircom's TX3 Platform solution in a single dwelling unit, as this set of solutions is designed for multi-residential condominium buildings. Due to the various parties involved, not all products that were used in the sustainable home were compatible.

While Mircom products have the ability to integrate with other systems, the client had committed to using a proprietary panel from another manufacturer, which had been designed as a closed device. This manufacturer's technicians were not capable of configuring their devices with others and also charged a yearly subscription fee in order to support their devices.

## Mircom Solution

In order to complete the installation, Mircom technicians worked with the third-party manufacturer's staff to integrate the devices. Aside from the challenges relating to connectivity, the team provided training and support to the client and others involved in the project for all Mircom solutions used.

Mircom's TX3 telephone entry panel and InSuite easily integrate communication and connected living into Kortright's Archetype Sustainable House.

## Project Background

The Archetype Sustainable House is located at The Living City Campus at Kortright, a sustainability education centre. The project is a joint initiative between the Building Industry and Land Development Association (BILD), and Toronto and Region Conservation Authority (TRCA), whose aim is to promote sustainable building practices and to help Ontario residents understand that conservation starts at home.

The “house”, which was constructed in 2009, is made up of two fully functional semi-detached units. The 3-floor retrofit units showcase sustainable technologies, materials and practices, and promote a holistic approach to home and community building.

One semi-detached unit holds the best cutting-edge green building practices currently available, while the other showcases new technologies that will be available in the future.

Moreover, the buildings are Platinum Certified by LEED Canada. The LEED organization provides third-party assurance to homebuyers that their home complies with rigorous technical requirements for

## Benefits and Value Added

The ultimate goal of the project was to promote conservation and sustainability. Installing Mircom's TX3 InSuite exceeded the client's conservation goals by automating various energy-draining components of the home. For example, the TX3 InSuite regulates water and energy consumption by controlling lighting, HVAC, and other high-energy appliances. Through this method of control, there is an ultimate reduction in the amount of resources used when these appliances are not in operation.

*“The ultimate goal of the project was to promote conservation and sustainability... [and] Mircom's TX3 InSuite exceeded the client's conservation goals by automating various energy-draining components of the home.”*

The TX3 InSuite is part of Mircom's TX3 Platform, which provides a total management communication and security solution. It is the only solution on the market that seamlessly integrates physical and logical access control, home automation, internal building communications, emergency alerting and property management software. The solution is easy to install, saving manpower and money.

## The System

TX3 InSuite is a PoE driven 10" touch tablet with ZigBee™ wireless capability. It provides life safety and fire alarm annunciation, card access integration and two-way audio & video communication capability, for a more secure space. Additionally, TX3 InSuite's open and secure plug-in based architecture can interface with many third-party software solutions for lighting control, HVAC management, energy management and much more.

Mircom's TX3-200-4U-A Slim Line Telephone Access System is designed to provide primary resident/visitor access control for applications with up to 200 residents or users. The slim design is ideal for applications such as the Archetype Sustainable House, which have limited space. It features a built-in rain hood, microphone, tamper resistant speaker



Mircom's Voice  
Access System  
TX3-200-4U-A



and has provisions for a postal lock and color camera to be installed. In addition, the system features a configurable multilingual display and voice prompts.

The system is programmable via the built-in keypad or using a computer with the optional TX3 configuration

software; it can also be configured remotely using the TX3 configuration software and the TX3-MDM Modem Module.

## System Summary

### Mircom Products Used:

- 1 x TX3-200-4U-A Slim Line Telephone

### Access System

- 1 x MIR-TX3-130025 TX3 10" InSuite
- 1 x MircomVM/MircomNVR in AWS

### Eco-system Products Used:

- 1 x HikVision 1.3MP Outdoor Dome camera
- 1 x Pelco Sarix IL10 Box camera
- 1 x Cisco Linksys LRT224 Dual WAN Gigabit

## Installation and Team

This installation was completed by a team of 6 but would not have been possible without BILD, TRCA and the many other sponsors and volunteers who contributed to the construction.

Mircom employees worked closely with George Brown College, which supplied expertise and physical labor for the project. Together with George Brown professors and students, Mircom technicians tested and implemented the innovative home automation features and engineered the right solution. Mircom employees also provide off-site/on-site training and on-going support for all of Mircom's donated products and solutions.

### About Mircom

Founded in 1991, Mircom is a global designer, manufacturer and distributor of Intelligent Building Solutions. Reaching customers in over 100 countries worldwide, Mircom's portfolio includes: fire detection & alarm, communications & security, mass notification, nurse call, and building automation & smart technologies. Mircom's vision is to make buildings worldwide safer, smarter, and more livable.

## Conclusion

Mircom counts the Archetype Sustainable House among one of our most important installations. We are especially proud of our contribution to one of the first integrated intelligent homes in the world, encompassing communication and connected lifestyle into a single-dwelling unit using cloud-based technology. We are also very proud of the green initiatives being taken in our community and to be a part of making all types of buildings safer, smarter, and more liveable.

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