



**smart<sup>i</sup>**

Security. Control. Comfort.

access control  
time & attendance  
building management

based on multimodal biometrics using facial and voice recognition

Samples of use:

Home security &  
home automation

## Introduction

In shopping for our home security and home automation needs, we all are looking for basically the same things. We want cutting edge technology that makes life safer and easier for our family, that adds to the aesthetics of our home rather than detracts from it and that will seamlessly integrate with any of the major systems of our home. We want a system that will adapt with our changing needs; a system that will be prepared to handle even those eventualities that we have not yet thought about.

Having identified the problem, we have the solution ... **smarti**. **smarti**'s multimodal biometric home security and automation system is simply unsurpassed in terms of flexibility, functionality and connectivity in the industry.

## Home Security

- Biometrics  
Any lock or entry system is trying to only allow access to those people who are approved at the times they are approved. – **smarti measures who you are not what you carry**. **smarti** uses biometrics (the measurement of physical characteristics for use in verifying the identity of individuals) in order to do this. It identifies the person based upon their own unique facial and voice attributes, and not a key, card or code that can be lost, stolen or misused.
- Prevention
  - Just having **smarti** with the built-in infrared camera at the entry of your home helps to deter potential intruders from attempting to break in.
  - **smarti** has the capability to be connected to your lighting, electric blinds, sprinkler, and even home entertainment systems which can be set up so that you can simulate your presence even when you are away. You can change the times and duration that lights go on and off which is a great improvement on standard plug in timers.
  - The video intercom means you will never have to open the door to see who is there, and allow potential intruders access to your home. **smarti** helps you keep unwanted visitors out and it allows you to easily see and communicate with those you do wish to speak with.
  - The built-in IP Phone even allows you to answer the door from your mobile phone! Whether on a business trip hundreds of miles away, or on a beach halfway around the world, you always know who is knocking on your door.
- Video surveillance and Monitoring
  - Either through the built-in infrared camera or through any number of IP cameras which can easily be hooked up to the system you can monitor your home and surroundings from inside or anywhere in the world via the internet. **SIDEBAR-Monitor** children, elderly, pets
  - You can be informed about what is happening in your home even when you are not there. Through any number of connected sensors (smoke, flood, motion alarm, Radon or CO gas, etc...) **smarti** immediately informs you of potential danger to your family. **smarti** can be set to contact you or your security service via text message, or email.

## Home Automation - It is all about Control and Comfort!

**smarti** allows you to connect and control many of the functions and systems in your home from one, easy to use interface. Lighting, heating and cooling, blinds, electrical devices, and communications can be put together in a way that makes your life more comfortable and convenient. It can also help you help the environment and save money!

- Controlling your lighting conditions is a way of maximizing the comfort and economy of your home. Surely you want a different ambience when you are watching a movie, having dinner

or throwing a party for your friends. It is important that the atmosphere of your home adapts to your mood.

- Controlling your electric blinds with **smarti**, allows you to adapt your electric lights to your natural lighting conditions and ensures privacy at those times you wish.
- Why pay to light and heat your home when you are not there? **smarti** can control your lighting, heating and cooling to affect maximum efficiency and comfort, and also help save the environment.

In effect, **smarti** acts as a **universal remote control for your home!** **smarti** is set up in a centralized location in your home to control the whole house, and is also accessible from anywhere – inside or out via the internet or mobile phone. The touch screen user interface is easy to use and customizable to suit your needs.

- Communications Center

Video messaging – Anyone can leave a video message and can be sure that you will receive it. It is an answering machine for your door!

Inside, through your network you can access the internet with buttons to display weather reports, stocks, recipes, tv guide or anything else you desire .You can even access your phonebook, contacts, and email manager.

Making your life safer, easier, and better is what **smarti** is all about. You can have peace of mind knowing **smarti** can adapt to your changing needs.

## Case 1

### The situation

A family wanted to automate their two-storied house and make it safer for the children. The family already had a Local Area Network with access to broadband Internet and a hardware firewall in the house. They decided to use the system because it has the video intercom and video/IP phone features already integrated and an alarm system can be connected to it.

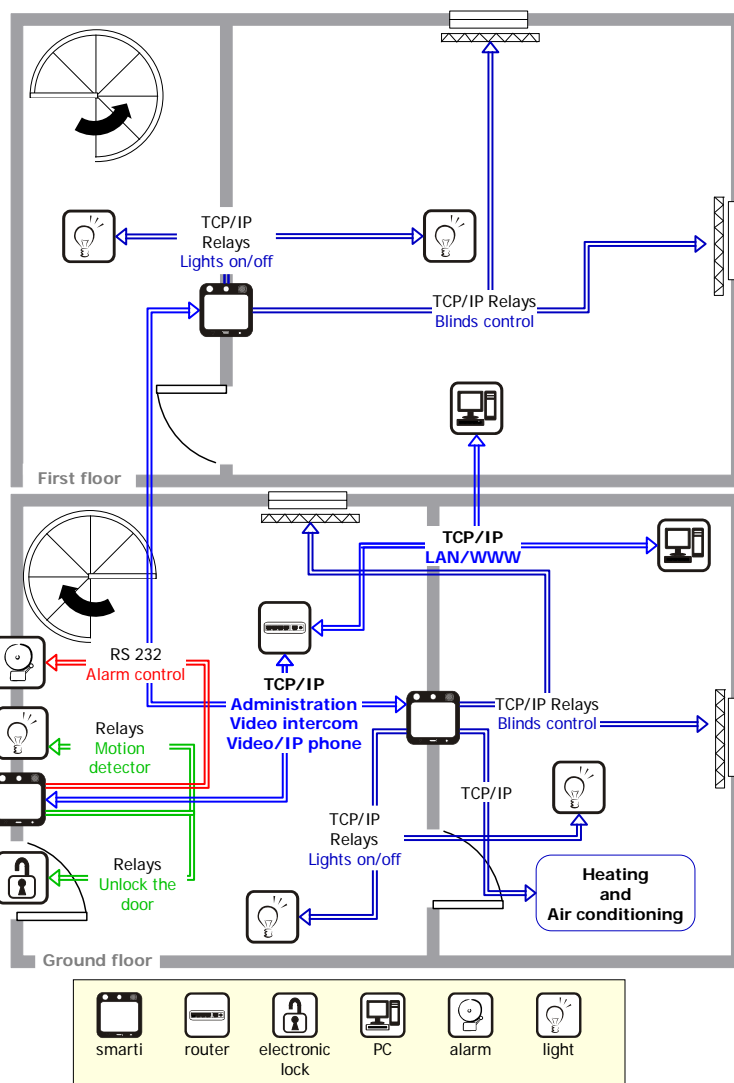
### The solution

Three **smarti** units were installed and networked into the Local Area Network which already existed in the house, thus connecting them to the Internet.

The first unit was installed by the entry door. The light above the door was connected to the **smarti's** motion detector. The electronic lock which opens the door and the newly installed alarm system were also connected to this **smarti** unit. The alarm was configured so that when the last person leaves the house it is turned on and when the first person arrives it is turned off. The alarm settings can also be modified from any of the **smarti** units but only by the parents.

The second **smarti** unit was installed in the living room on the ground floor. The third **smarti** was installed on the first floor. All of the lights, blinds, the irrigation heating and air conditioning systems are connected to TCP/IP based relays which can be controlled through the computer network by these two units.

There are also a few IP surveillance cameras mounted on the house and the live video feeds from these cameras can be watched from both smarti units.



**Video intercom:** this function can be started from any of the installed **smarti** units. No identification is needed. A visitor who comes to the entry door presses the video intercom button which is available to everyone. **smarti** then opens a video channel to the second and third unit. The family can see and hear who is at the door and can open them the door.

**Video/IP phone:** this function can be started from any of the **smarti** units, the person who wishes to use it has to be identified by the **smarti** a member of the family. The person than presses the telephone button which lunches the Video/IP phone application.

The children also have a special button with which they can directly call the mobile phones of their parents.

**Lights and blinds:** the lights and blinds in the house can be controlled from the **smarti** unit in the living room and on the first floor. The person identifies himself and then presses the appropriate button which launches the application from which lights and blinds can be controlled. The parents can control all the settings and the children have only limited control. Both the blinds and the lights can also be controlled automatically according to a predefined schedule.

**Irrigation system:** this system is controlled automatically according to a predefined schedule by the **smarti** system, but a rainfall sensor can override the schedule.

**Air-conditioning and heating:** can be controlled from the **smarti** units in the house but only by the parents.

All of the systems connected to the **smarti** can also be controlled remotely by sending an e-mail from a smart phone or a notebook.

### Below the line

The family heightened the security and safety of their home in addition they automated the entry point, lights, blinds heating and air-conditioning.

The parents now don't need to worry, that their children will lose the house key and not be able to enter or that their key will get stolen. They also have the option of remote access and control of the system over Internet with the use of the **smarti** client installed on their laptop computers. The system sends an e-mail notification to the parents when a child enters the house. This way they can always be informed what is happening in the house.

## Additional benefits

The use of the **smarti** system offers many potential benefits when used for home security and home automation.

- **smarti** is the ultimate safe, keyless entry system for your home, and family!
- You can change the times and duration that lights go on and off automatically which is a great improvement on standard plug in timers.
- You will never forget to turn on your alarm system again. **smarti** can be set to automatically secure the house when last person has left.
- **smarti** can notify you that your children have arrived home safely from school.
- In case of a fire – **smarti** can auto turn on lights, stop HVAC, call emergency numbers.
- You can create a Panic Button to turn on all lights in house if intruder is feared.
- We can never forget, none of us wants our home to look like a military compound. Our security solution must be attractive and unobtrusive, and there is nothing wrong with it making a nice first impression on our guests.
- With **smarti** you can create scenes to meet your every mood (romantic dinner, party, watching a movie etc.)
- Blinds adjust automatically to sunrise/sunset times and your mood (watching a movie...).
- The system can even manage your irrigation/sprinkler system and adapt to rainfall conditions via sensor.
- Half an hour before you wake up, **smarti** can warm up the house to get you ready for the day. When you leave for work, you can create a “exiting the house” button, to lower the heat and turn off the lights.
- You can also either pre-program **smarti** to begin to raise the heat again at a preset time before you return home at night or you can do this remotely via your mobile phone or internet.
- You can also create a “going to sleep” button that can begin to shut the house down for the night even in stages if desired (heating & cooling, lights, blinds, water heater ...).
- Did you know **smarti** can also control the settings for your pool or spa, greenhouse, wine cellar, attic fan, and irrigation system? And you can even control them remotely!