pulse.

Living Buildings

pulseliving.com

living.buildings

At Pulse, we make it easy to control the environment in homes and hotel rooms while helping conserve energy and improve security.

From single homes to entire communities, our products and services can scale to deliver automation, entertainment, security, and community connectivity in a way that has never been possible before.

Our technology creates buildings that are safe, intelligent, comfortable, and efficient: **Living Buildings**

Automation provides total command over the environment in homes and hotel rooms. Pulse products and services automatically regulate lighting, climate control, curtains, irrigation, etc., to help create a comfortable yet efficient living space.

Entertainment features include control of popular multi-room audio and video distribution systems, DLNA Certified™ and UPnP™ networked entertainment products, and client software for Microsoft® Windows Vista™ Media Center computers.

Community level automation, energy conservation, fault monitoring, and communications are now possible and affordable. Property developers and hotel operators can now provide the convenience of smart technology to their customers while improving the efficiency and responsiveness of their facilities management operations.

Security and safety are central to the design of our products. Sensors of various types, surveillance cameras, video intercoms, access control, all can be monitored from both within the home and over the Internet. Alarms and notifications can be sent via SMS or E-mail messages.
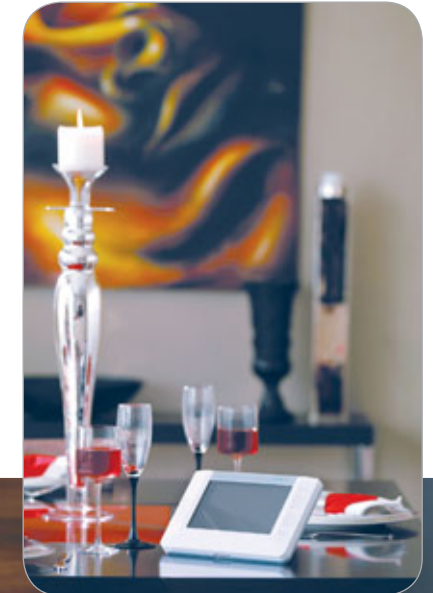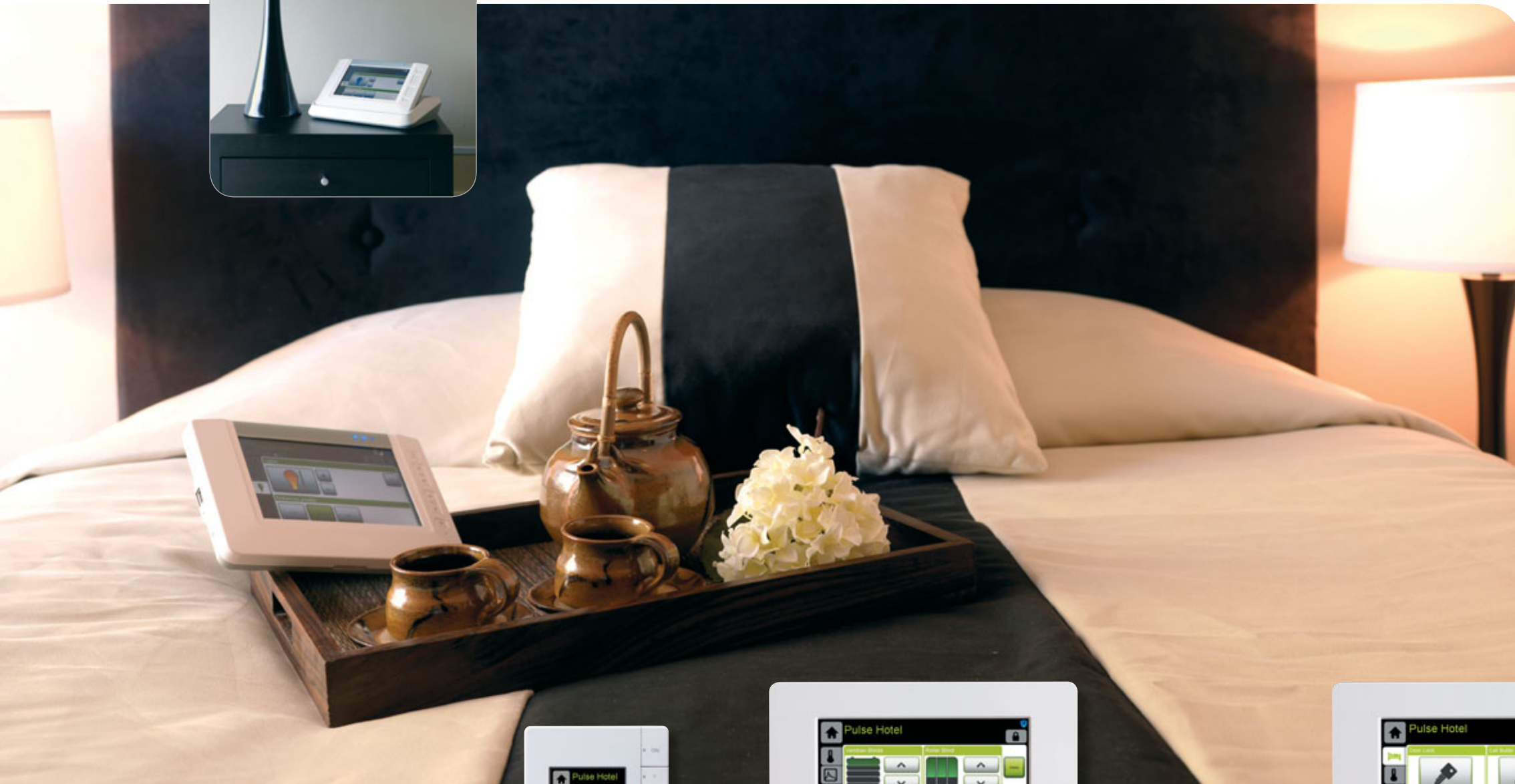
smart.home

Our network of trained system integrators can design and implement a solution that can scale from a studio apartment up to a large, luxury home both in terms of capability and price.

Take control of your home from anywhere in the world using web-capable smart phones or personal computer via the **pulse.command** service.

Our home automation platform delivers fingertip control of lighting, security, climate control, and entertainment, all from a range of devices both from home and on the go.

A Pulse-powered home not only gives you total control, but also automatically make decisions to help keep your home comfortable while conserving energy at the same time. Easy-to-use touch screens, both in-wall and wireless, allow you to monitor all aspects of your home and quickly adjust lighting, climate control, curtains, and entertainment with the touch of a button.

Pulse products have been designed to appeal to individual homeowners looking for ways to enhance their own homes as well as property developers building new communities. By leveraging the latest international standards for building and home automation, we offer solutions for both existing homes and new construction.

smart.hotel

In order to offer the highest level of service while maintaining efficiency, monitoring and control of every room in a hotel is essential.

Pulse products and services can integrate with hotel reservations and facilities management systems to provide up-to-the-minute data on the status and performance of in-room appliances and devices.

A hotel room that offers the latest in technology and convenience can also be energy efficient and economical.

Give guests an easy way to manage the lighting and temperature inside their room. Enable maintenance teams to have continuous fault monitoring data over all aspects of the room, from defective light bulbs to malfunctioning heating or cooling.

Improve the level of service for hotel guests by offering direct access to updated room service menus, hotel directories, news and information, and special offers from conveniently placed Pulse touch screens in each room.

When a room is not occupied, it can automatically be set into an energy efficient mode; as soon as a guest checks in, the system ensures that by the time they reach their room it is well lit and at a comfortable temperature. They can operate the Pulse touch screen in the language of their choosing and gain immediate access to interesting and relevant hotel information.

simple.lifestyle

The **pulse.touch7w** wireless touch screen enables monitoring and control from any convenient location. Keep it at the dining table while enjoying a family meal or on the bedside table for easy access.

Communicate with and grant access to authorized visitors from anywhere in the home.

Multiple ambiances combining lighting, heating, ventilation and air conditioning, music and entertainment, curtains and blinds can be activated through wall mounted and wireless Pulse touch screens.
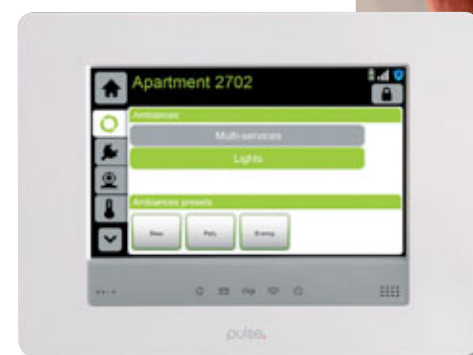
An ambience can be initiated, for example, when watching a movie. Depending on the time of day, blinds or shutters can be adjusted to give the required amount of shade, or alternatively, lighting dimmed to create a soothing environment, while the entertainment system comes alive at a specific volume.

A 'welcome home' ambience would be initiated by the access control system recognizing which occupant has arrived home. The Pulse system adjusts lighting, air conditioning and music settings automatically to the preferences of the individual.

If the Pulse system detects that no one has been home for 48 hours, it can automatically put the home into an efficient and secure 'vacation' mode. Heating and cooling systems are put into an economy setting, unnecessary lights are switched off or dimmed, water heaters and other appliances are turned off, and the security system is armed. At the same time an SMS or E-mail message is sent to the homeowner notifying them of these changes.

total.automation

Pulse delivers standards-based automation that is reliable, simple, and cost effective

Both new and existing homes can take advantage of our products and services because of our support for recognized standards such as KNX/EIB™ and Z-Wave™. When combined with products from leading manufacturers whose products support these two protocols, almost any type of device or appliance can be monitored and controlled.

Pulse is the first company to seamlessly integrate devices using various technologies and protocols. IP Cameras can be used as motion detectors to activate lights or alarms. A Z-Wave push button can control a KNX dimmer.

The pulse.controlpro gives total command over natural and artificial lighting in homes and hotel rooms, including shutters, curtains and blinds. All types of light fixtures including incandescent, halogen, fluorescent, and others can be adjusted based on personal preference, time of day, or outdoor light levels

Ensure the correct temperature of each room, exactly when it is required. Heating, ventilation and air conditioning managed through the Pulse solution provides occupants with comfort whilst they are at home and energy saving whilst away. Whether it's a simple heating system in a single home, or management of fan coil units in high-rise apartment buildings, the pulse.controlpro can handle it.

Motorized control of window treatments is not only a luxury; it can also help to make a home more efficient and secure. Opening or closing blinds intelligently can adjust the amount of natural light in a room to maintain optimum brightness. When a room is too hot, sunlight can be blocked to help the air conditioning perform more effectively. Security can be enhanced by automatically closing all curtains and blinds when there is no one home.

pulse.controlpro can automatically activate garden irrigation system depending on the weather forecast and data collected by the installed weather station and sensors. In this way, water is conserved while at the same time maintaining the health of plants and grass.

A multi-room audio system can be linked to motion detectors to automatically adjust volume when someone enters or leaves a room.
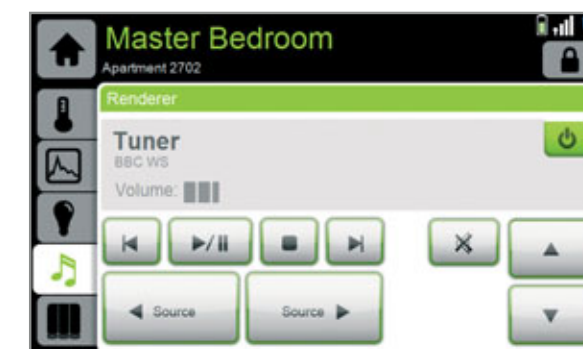
All of these scenarios are possible in a Pulse-powered home.

great.entertainment

Entertainment systems are an important part of many homes, and Pulse-powered homes are no exception.

With Pulse, a new level of control and integration is possible that takes whole-home entertainment to a new level.

Unified control over multi-room audio, video, lighting, temperature, and window treatments provides unprecedented levels of comfort in a reliable and cost effective way.

Integration with Microsoft® Windows Vista™ Media Center computers and other DLNA/UPnP capable networked entertainment products means that greater levels of control are possible.

Not only can the home be monitored and managed via a Media Center PC, but also content from this or any other media server in the home can be streamed over the Ethernet or WiFi network to compatible digital media adapters throughout the house.

Multi-room audio and video distribution systems allow homeowners to enjoy their music and movies throughout their house. Play the same music throughout the house, or select individual content and volume settings for each zone. Modern systems can also distribute high definition video along with audio to each room.

As more and more content is available in digital formats, the popularity of digital distribution of electronic content has also grown considerably.

Industry standards such as DLNA™ and UPnP™ have made it possible for digital entertainment devices from different companies to efficiently communicate on the home network and stream music, pictures, movies, and even television over standard Ethernet or WiFi networks.

Microsoft's Windows Media Center product transforms a personal computer into the heart of digital entertainment in the home. Digital photos, music, DVD movies, live TV, downloaded movies, and personal content can be enjoyed in high definition throughout the house via Media Center Extenders such as the Xbox 360 and other compatible devices.

Multi-room audio and video distribution systems allow homeowners to enjoy of their music and movies throughout their house. Play the same music throughout the house, or select individual content and volume settings for each zone. Modern systems can also distribute high definition video along with audio to each room.

As more and more content is available in digital formats, the popularity of digital distribution of electronic content has also grown considerably. Industry standards such as DLNA™ and UPnP™ have made it possible for digital entertainment devices from different companies to effectively communicate on the home network and stream music, pictures, movies, and even television over standard Ethernet or WiFi networks.

Microsoft's Windows Media Center product transforms a person computer into the heart of digital entertainment in the home. Digital photos, music, DVD movies, live TV, downloaded movies, and personal content can be enjoyed in high definition throughout the house via Media Center Extenders such as the Xbox 360 and other compatible devices.

connected.community

active.security

The Pulse vision is not only to create smart homes, but smart communities made of many individual Pulse-powered homes.

Communities where networks of connected systems enable homeowners, maintenance teams, telecommunications operators, and energy companies to work together seamlessly to create comfortable, safe, and efficient living spaces. From the basics of allowing homeowners to monitor and control their home securely from anywhere in the world, to providing real-time fault and performance data to maintenance companies, Pulse products and services take advantage of modern broadband networks and 2G and 3G wireless networks to make all of these capabilities possible and affordable.

Dramatic increases in global energy demand and rising costs necessitates the use of intelligent control system that economize electricity and water usage in homes and hotels; yet there are still instances where power shortages result in rolling blackouts which inconvenience customers and strain electricity grids.
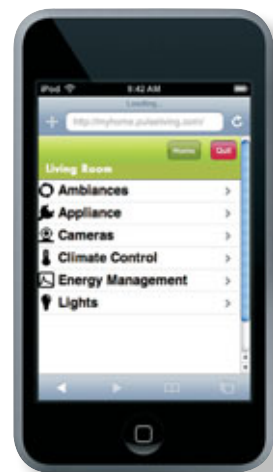
Pulse offers a more intelligent alternative; homes that can be automatically put into an economy mode to quickly and safely reduce consumption when an electricity shortage occurs. Energy providers can easily remotely reduce consumption in Pulse-powered communities while ensuring that sufficient lighting and climate control systems continue to function.

The first step to saving electricity is to know how and when it is being consumed. In order to help homeowners and facilities managers make more informed decisions about conservation, the **pulse.command** service gathers electricity consumption data from a range of sources to measure consumption for each circuit and room as well as the entire house. Up to seven days average, peak, and current consumption is displayed on Pulse touch screens.

The primary purposes of the **pulse.connect** service is to allow homeowners to remotely monitor and control their home from a range of web-capable mobile phones and computers. A simple, yet powerful web interface based on the latest Web 2.0 technologies automatically tailors itself for the capabilities of the device being used and is optimized for low-bandwidth mobile networks.

Every Pulse touch screen has the ability to display remote community services delivered over the web. For homeowners, these includes community news and directories, weather and stock quotes, or limited e-commerce services. Hotel guests can browse up-to-date room service menus, listing of events in the hotel or surrounding area, and guest folio. The possibilities for future services are endless and are delivered to the home via the **pulse.command** service.

One of the most powerful features of the Pulse family of products is their ability to be centrally configured, monitored, and managed. The **pulse.command** service empowers Pulse system integrators to commission hundreds of Pulse-powered homes at once, monitor the status of all intelligent systems, and remotely update configurations or software directly from their office.

With Pulse, security is of paramount importance.

Alarm systems, surveillance cameras, movement and smoke detectors, as well as sensors to detect wind or glass breakage can be easily integrated and monitored.

The Pulse system takes immediate action if smoke is detected. Shutters or window blinds are opened, the ventilation system is activated, escape route lights are illuminated and doors unlocked. An alert is sent via SMS or E-mail to the occupant or designated contact.

The Pulse system will automatically issue **commands to close shutters** or window blinds if high wind speeds are detected.

Through Internet Protocol (IP) cameras, the interior and exterior of properties and buildings can be monitored. Static images and videos can be viewed via Pulse touch screens or automatically sent to emails and mobile devices.

Sensors identify if heating, ventilation and air conditioning systems and home appliances are functioning correctly. If any fault is found, the Pulse system immediately sends a message via the touch screens or to mobile devices.

If any suspicious or unusual activity is identified, the Pulse system will immediately alert occupants and trigger commands to the different interconnected systems.

If sensors detect any movement during the night or while the property is vacant, a range of actions can be automatically initiated.

When the access control or door locking system indicates that the building is unoccupied, the Pulse system activate the 'away' ambiance; closing all shutters, switching air conditioning to standby mode and turning off lights and home appliances.

It also simulates occupancy through activating pre-set ambiances to deter intruders.

pulse.delivers

Developers

Homebuyers are looking for houses that are attractive, comfortable, safe, and energy efficient. All of these characteristics can be enhanced with Pulse products and services. From automation to entertainment, security to energy conservation, Pulse-powered homes allow homeowners to make the most of modern automation and communication technology in a user-friendly and cost effective way, while at the same time enhancing the image of the home or community among perspective buyers.

At construction time, the incorporation of Pulse and related technologies can reduce the amount of wiring and conduiting required, while only adding a slight premium in terms of additional switchgear and actuators.

Upgrades offered to homebuyers can offer additional revenue streams both at the time of purchase and continuously through the lifecycle of the house.

Facility Managers

Real-time monitoring of the status of every light fixture, air conditioner, water and gas leak detector, and security alarm enables facilities management and security organizations to deliver an unprecedented level of service.

Proactive maintenance now becomes possible as all faults are immediately discovered. Maintenance teams do not have to wait for customer complaints to resolve problems.

Economizing electricity consumption in hotels and serviced apartments becomes easier when detailed consumption data is provided in real-time via the **pulse.command** service. Optional integration with hotel reservations systems means that more intelligent occupancy-based conservation can be employed.

System Integrators

Pulse system integration partners benefit from the first automation system designed for large-scale deployment. Intuitive and friendly configuration tools reduce the amount of time required to configure, deploy, and maintain Pulse products in large residential and hospitality developments. Seamless integration of devices using different protocols, such as KNX/EIB and Z-Wave, increases flexibility for all types of projects.

The **pulse.connect** service enables Pulse system integrators to remotely monitor and update all customer homes and hotel rooms from the comfort of their office. Customer requested configuration changes can be implemented over the Internet in a secure and reliable manner, without time consuming and intrusive on-site visits.
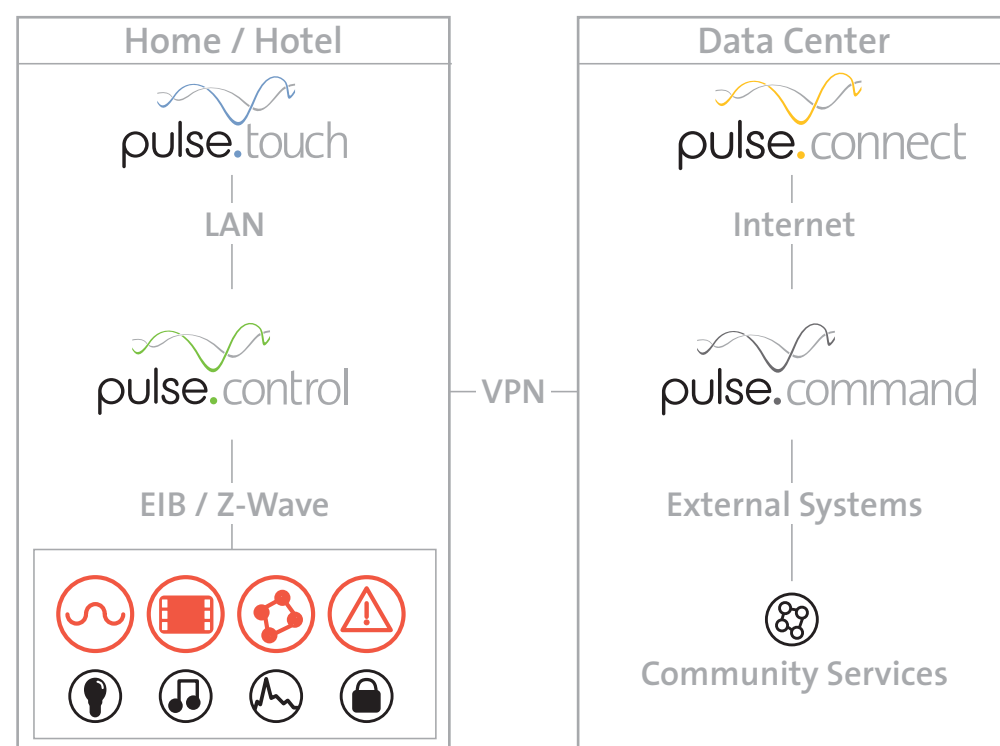
pulse.architecture

The Pulse platform was designed for connected applications, bridging the gap between devices, people, and the Internet.

Within each home, the **pulse.controlpro** acts as the brain of the home, connecting all systems via protocols such as KNX/EIB, Z-Wave, RS232, or TCP/IP. It can then be connected to any number of Pulse touch screens via Ethernet or WiFi. The **pulse.touch** family of touch screens provide up-to-date information on all connected devices as well as communications such as intercom.

The **pulse.controlpro** maintains a secure industry standard Virtual Private Network (VPN) link with the **pulse.command** server that can be located in each community or the **pulse.command** service hosted by Pulse. This link allows homeowners to remotely access and control their home from any modern web-capable device. In addition, it allows external management systems to monitor the functioning of the home via protocols such as Simple Network Management Protocol (SNMP).

Home / Hotel

pulse.touch

LAN

pulse.control

EIB / Z-Wave

— VPN —

Data Center

pulse.connect

Internet

pulse.command

External Systems

Community Services

pulse.technologies

Pulse products are based on international standards for building and home automation such as KNX/EIB and Z-Wave.

These standardized multi-vendor protocols cover the gamut of residential, hospitality, and commercial automation requirements including lighting, heating, ventilation, air conditioning, security and safety, window treatments, pool and spa, access and intercom, and metering.

KNX is a standardized (EN 50090, ISO/IEC 14543), OSI-based network communications protocol for intelligent buildings. KNX is the successor to, and convergence of, three previous standards: the European Home Systems Protocol (EHS), BatiBUS, and the European Installation Bus (EIB).

KNX enables the integration and programming of a range of products from a variety of manufacturers using a single software tool.

KNX products are all thoroughly tested for compliance, ensuring they operate seamlessly together on a single, simple network. With almost 7,000 certified products from over 100 manufacturers, a network of more than 30,000 trained installers in 75 countries, KNX is the first global standard for building and home automation.

Z-Wave is the interoperable wireless communication protocol developed by Danish company Zensys™ and the Z-Wave Alliance™. It is designed for low-power and low-bandwidth appliances, such as home automation and sensor networks.

Each Z-Wave product must pass a stringent conformance test to assure that it meets the Z-Wave standard for complete interoperability with all other devices and controls.

The Z-Wave identity mark assures consumers, integrators, dealers and manufacturers that their products will reliably perform with any other Z-Wave device.

pulse.controlpro

pulse.touch

At the heart of every Pulse-powered home or hotel room is the versatile pulse.controlpro

This unique device seamlessly integrates automation, entertainment, and security devices with network delivered services. It is engineered to the highest international standards and designed to run maintenance free for many years in any climate.

Industrial-grade embedded automation controller.

Based on Microsoft Windows CE 5.0.

Flexible connectivity including KNX/EIB, Z-Wave, dual Ethernet, and RS232.

Rugged, no moving parts, field serviceable.

Configured, monitored, and managed over the network.

Low power consumption; can run on battery.

Designed in the UAE, made in Germany.

CE and FCC certified, RoHS compliant.

touch**7w**

touch**7**

touch**3**

The pulse.touch family of touch screens are friendly, aesthetically pleasing, easy to install, and economical.

Available in three versions, two in-wall and one wireless, all three feature bright displays with wide viewing angles and customizable front bezels.

pulse.touch7 and 7w feature 7" wide screen display (800x480 pixels).

pulse.touch3 has a 3.5" portrait display (240x320 pixels).

Both in-wall models can be powered over standard Cat5e or Cat6 Ethernet cable.

All feature energy efficient LED backlighting, no moving parts, no ventilation required.

Wireless pulse.touch7w includes integrated WiFi 802.11b/g, docking station, and battery life of up to 8hrs.

Optional wall-dock available for pulse.touch7w.

Seven programmable buttons on pulse.touch3 five on pulse.touch7w

CE and FCC certified, RoHS compliant.

pulse.connect

Taking control of your home from anywhere on any device is now possible.

The **pulse.connect** service overcomes many of the limitations of home networks by offering a reliable, friendly, and secure way to monitor and control homes via modern smart phones and personal computers.

The combination of native client software for certain devices and modern web interface most others ensures that homeowners can stay connected and in control wherever they are.

Does not require static IP address, dynamic DNS service, or port forwarding.

Works with any type of Internet connection, including mobile 2G and 3G networks.

Native client software for some devices such as iPhone™ or iPod Touch™, Windows 5/6 smart phones.

Modern web interface for other smart phones and personal computers using latest Web 2.0 technologies.

Compatible with Internet Explorer 7, Firefox 2, Safari 3, or newer.

Optimized for mobile data networks such as EDGE or 3G.

pulse.command

Managing smart homes or smart hotels has never been easier.

Every Pulse-powered home or hotel room is capable of being centrally configured, monitored, and securely managed via the **pulse.command** service.

Secure VPN links are maintained to each **pulse.controlpro** enabling facilities management companies to continuously receive fault alerts, security alarms, and energy consumption data.

Pulse system integrators can use the service to remotely update settings or software on one or many Pulse installations without even leaving their office.

Uses industry standard IPSec VPN links.

Does not require static IP address, dynamic DNS service, or port forwarding.

SNMP used for monitoring Pulse systems as well as connected third-party products.

Software updates can be deployed to one or many installations at the same time.

High levels of encryption ensure data security.

Does not require large capital investment.

Can be used to integrate with external facilities management, hotel reservations, or community services.

Pulse technology creates buildings that are safe, intelligent, comfortable, and efficient.

Living Buildings