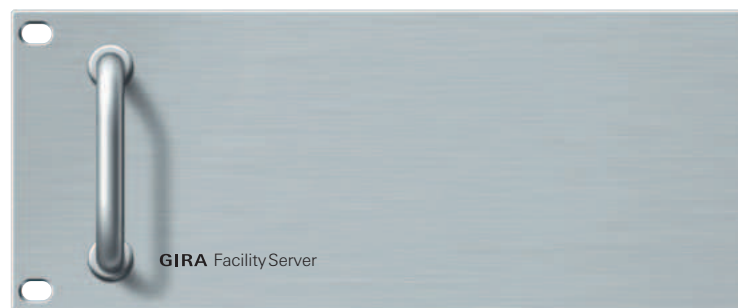


**Intelligent building control
for all requirements**
Smart building management
in private residential buildings
highly efficient facility manage-
ment in commercial properties

GIRA

Gira HomeServer 3, Gira FacilityServer

Intelligent building management via
KNX/EIB and TCP/IP

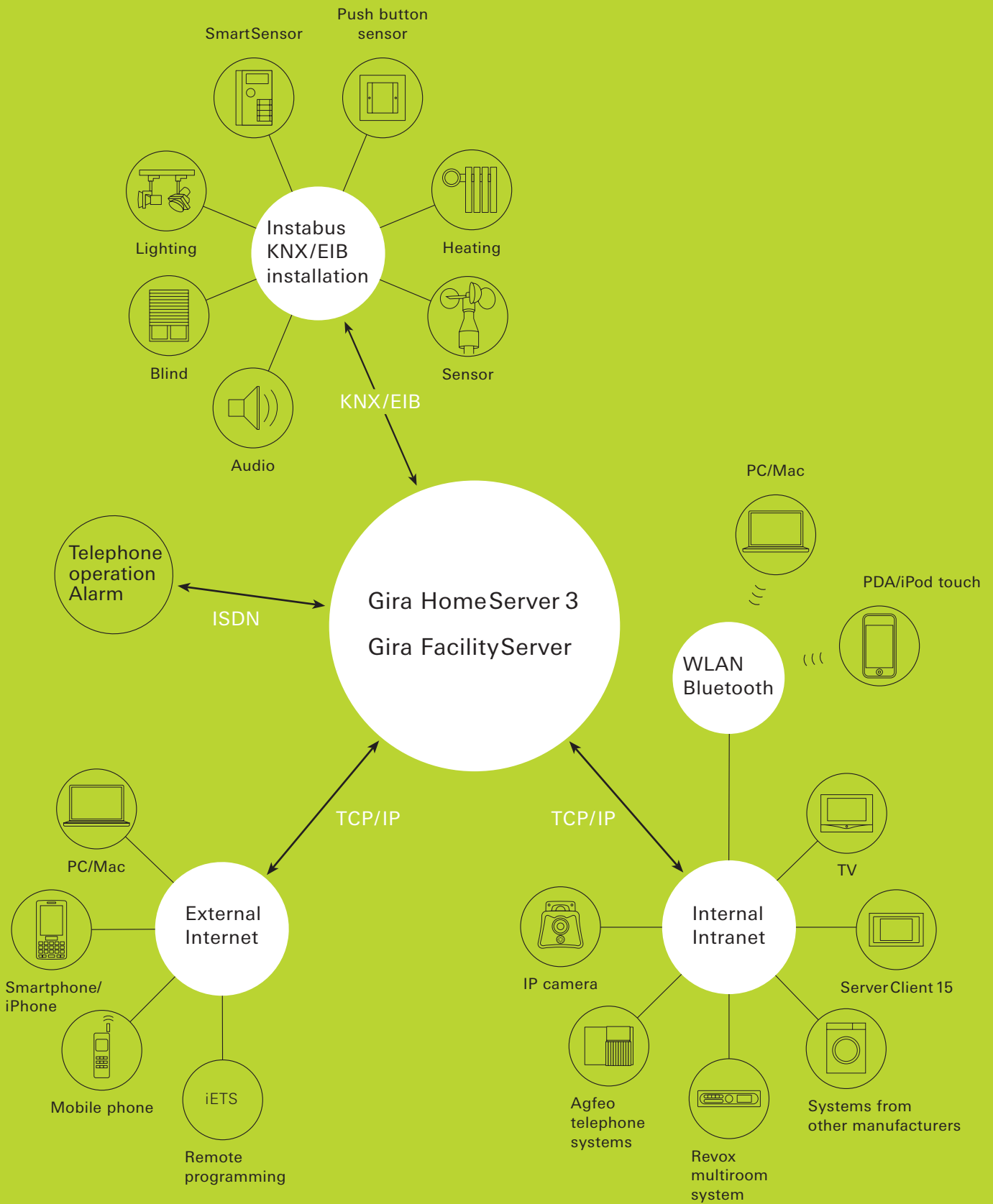


Intelligent networking for intelligent building management

Intelligent building management ensures more comfort, more economy and more security both in the private and commercial fields. With the Gira HomeServer 3 and the Gira FacilityServer the entire spectrum of building technology can be regulated and controlled multi-functionally and a complex system and process monitoring set up. On the basis of two global standards the Gira servers connect the Instabus KNX/EIB system with the Intranet and Internet via TCP/IP. Thus monitoring and operation of the building technology is possible at any time and everywhere from internally and externally – just like teleservicing and remote configuration of the system. This offers the users more flexibility, more mobility and more security.

Advantages:

- > Multi-function monitoring and control of the entire connected building technology
- > System and process monitoring
- > Independent controlling through several users
- > Teleservice and remote configuration of the Instabus KNX/EIB system parallel to running operation
- > More comfort, security and economy with for example cost-reducing energy management within the building



In private areas: the Gira HomeServer3

The Gira HomeServer 3 is the on-board computer for the house. It functions as a gateway for the entire Instabus KNX/EIB installation in a building and is absolutely essential for the networking of modern buildings and their technical equipment internally and with the world. It enables operation of the Instabus KNX/EIB functions via the most modern communication media. In addition to a PC, access is also possible with other Internet-capable devices – either directly via the local area network (LAN), an in-house radio network or via the Internet. Thus the Instabus KNX/EIB functions can be controlled and regulated anytime, anywhere.

Advantages:

- > Controlling from inside and outside the building
- > Maximum mobility and flexibility
- > Controlling of the connected building functions via standard software such as Internet browsers
- > Simple, intuitive operation by means of graphics visualisation or simple menu control
- > Extension and updating through software updates
- > Extensive range of functions

Access and control via the Instabus KNX/EIB system

The Gira/Pro-face ServerClient 15 can be used as a comfortable operating device for the Gira HomeServer 3. Placed at a central location in the building, it functions as the control, signalling and regulating control unit for the complete KNX/EIB installation as well as the terminal for receiving e-mails and accessing useful online-services.

The Gira SmartSensor furthermore presents itself as a multi-room regulating and operating unit for the Instabus KNX/EIB system. The Gira push button sensors are the most compact devices for controlling the bus system at individual operating points.

Access and control via TCP/IP and Internet

The Internet gateway homeserver.gira.com can be used to access one's Instabus KNX/EIB installation worldwide and without any additional software being required.

This gateway allows the user comfortable access to his building. It is thus possible to access Gira HomeServer3 units that go online after a user request.

Access is possible, for example, via a PC/Mac, mobile Internet terminals (SmartPhone, webpad), web TV and TV with Windows™ Media Center Edition. The images provided by the IP cameras connected to the network can also be viewed.

Protection against hacking from the Web

Thanks to its software architecture and various security levels, the Gira HomeServer 3 is protected excellently against hacking from the Internet.

Control via mobile phone

The user can be informed about technical malfunctions, measured values and states of the respective unit per e-mail, per call or SMS.

On the SmartPhone a special visualisation of the menu is possible in addition to display in the Internet browser. After identification the user via a mobile phone for example can switch all the linked electric devices and lights on or off, read and change the respective room temperature, view lists with malfunctions which have occurred or manage light scenes and time clocks.

When outside the building the Instabus KNX/EIB functions can be operated by means of mobile phone and GPRS/UMTS. Within the building the same operation is also possible via Bluetooth or WLAN without incurring online costs.

Identification

The highest degree of security is ensured through the checking of the phone number, user name and the PIN query. Various security levels can be configured user-specifically to various requirements depending on the access environment, for example, Internet gateway (external) or the Intranet (internal).



Gira HomeServer 3

Comfortable@home

Intelligent building management makes living even more pleasant and comfortable. For the Gira Instabus KNX/EIB system makes it possible to control various functions such as light, blind, ventilation, heating and household appliances very simply from a central position, for example via the ServerClient 15, with PC and Mac, or with SmartPhones such as the iPhone. The building control system can thus be adapted individually to the needs of the user and can be reprogrammed at any time. For example, scenarios can be combined with suitable music and repeating sequences, such as blind control or watering the garden can be controlled automatically at the desired times or dependent on the weather conditions.



Gira HomeServer3



Gira Interface on the Gira/Pro-face ServerClient 15,
glass black/aluminium
[Interface-Design: schmitz Visuelle Kommunikation, Wuppertal]

Central control of all house components With the Gira Instabus KNX/EIB system the entire house technology with functions such as light, blind, heating, ventilation and security equipment can be interconnected and operated. The states of the connected devices and functions can be monitored and modified via the PC/Mac, PDA/iPod touch, SmartPhone, ServerClient 15 or via TV with Windows™ Media Center Edition from a central position.

Room for room the right cosy temperature Time-controlled heating control ensures warmth on each room – exactly when it is needed. The bathroom is, for example, heated early in the morning and the living room is heated to the individual cosy temperature in the evening. If the sensors signal strong sunshine in the winter, the heating in the rooms is reduced and the sun's energy is used – thus saving energy.

Multimedia entertainment in every room With the Revox multiroom system or the Gira EIB Audio system music can be distributed and controlled in the entire house. Both systems can be included in the KNX/EIB installation by connecting them with the Gira HomeServer 3 and then also be monitored and controlled via PC/Mac, PDA or the ServerClient 15. This makes it possible to bind the music control without problems into room scenes.

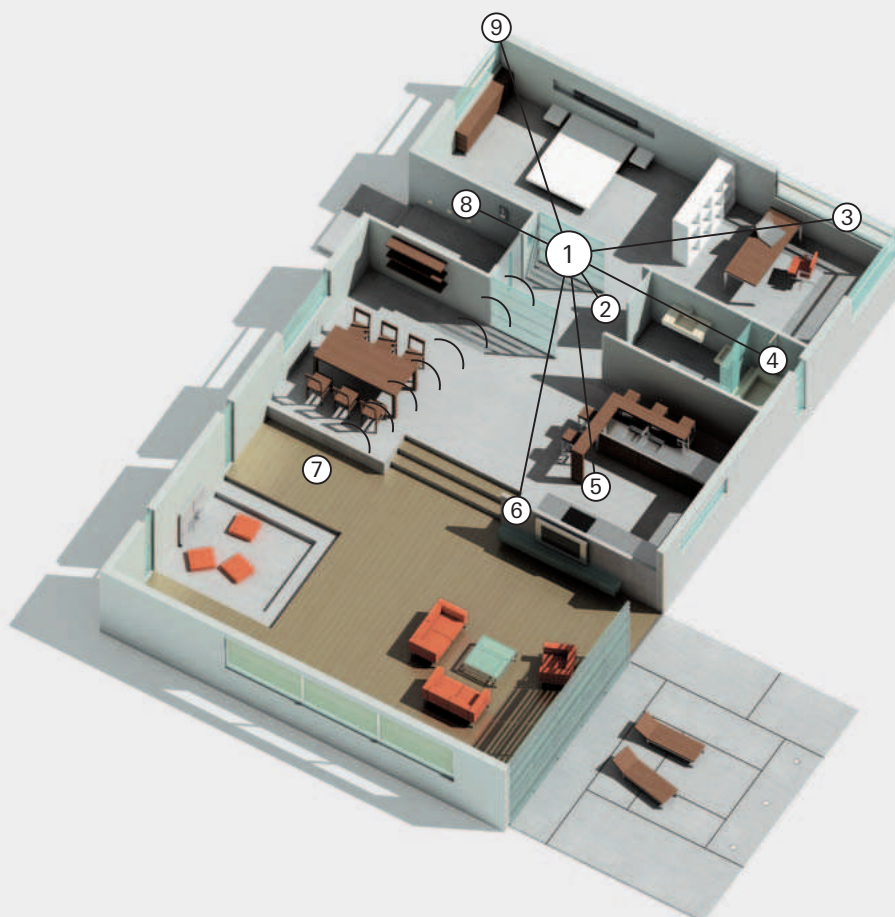
Creating and calling up individual scenes Lighting, blinds, heating and music control can be linked into complex scenarios. They can be combined individually and also modified at any time. Such a scene can be started, for example, when the TV is switched on: Depending on the time-of-day shading in realised by moving the blinds or shutters, the lighting is dimmed and the system is set to a specific volume.

The personal greeting scene If the door locking system or the Gira Keyless In products are included, the Gira HomeServer 3 recognises that an occupant has just come home. If this person opens the front door for example, the light scene preferred by the person is activated in the hallway and living room, favourite music is started, the bathroom is heated up and the Gira InfoTerminal Touch displays the current e-mails – all depending on the time.

Seeing from the sofa who has been there today When the bell rings while no one is at home, the Gira HomeServer 3 can record and archive the camera pictures from the door station in connection with the TV gateway from the Gira door communication system and an IP converter. Once you have returned home, you can, for example, call up the archived pictures via the Internet-capable TV with Windows™ Media Center Edition and look who wanted to leave something or visit.

Automatic watering of the garden The Gira HomeServer 3 decides automatically whether the garden has to be watered on the basis of the current weather data from the EIB weather station, of the weather forecasts from the Internet and depending on the measured values for the soil moisture. It then transmits control commands to the corresponding actuator equipment and activates the lawn sprinkler or the corresponding watering systems.

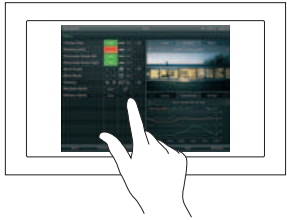
- ① Gira HomeServer3
- ② Gira InfoTerminal Touch
- ③ Blinds
- ④ Heating
- ⑤ Lighting
- ⑥ Home Entertainment with TV with Windows™ Media Center Edition and multiroom system
- ⑦ Mobile Internet terminal for controlling the building via WLAN
- ⑧ Door communication system with camera
- ⑨ Sensors for detecting weather data such as temperature, rain, wind



Gira Interface – simple operation of complex systems

All devices that can be used for building control via the Gira HomeServer 3 are now presented throughout in a newly developed, uniformly structured interface design. All functions controlled by the Gira HomeServer 3 are now available within two levels. A clear and intuitive menu guidance ensures quick access.

The user interface has been optimised for the various image sizes of the media. As such the user interface with large screen diagonals such as with the Gira/Pro-face ServerClient 15 is divided into three areas, guaranteeing a particularly comfortable operation. With colours and the incorporation of background images, individual adaptations according to user requirements can be included. The menu items Favourites and MyTouch can also be individually adapted.



Gira Interface on the Gira/Pro-face ServerClient 15



Gira Interface on the iPhone/iPod touch



Gira Interface on a PC or notebook

Ceiling lamp	ON	43%	▶ ⌚
Reading lamp	OFF	0%	▶ ⌚
Showcase lamps left	ON	100%	
Showcase lamps right	ON	79%	
Blind South	▲ ▼	70%	
Blind North	▲ ▼	42%	
Heating	☀️ 🔊	Nom. 21° Act. 20.5°	▶ ⌚
Window South	closed	🔒	
Window North	open		

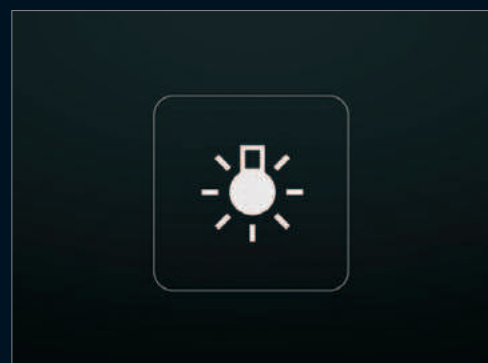
Function display

Ceiling lamp	ON	43%	▶ ⌚
Reading lamp	OFF	0%	▶ ⌚
Showcase lamps left	ON	100%	
Showcase lamps right	ON	79%	
Blind South	30%	OK	
Blind North	42%		
Heating	☀️ 🔊	Nom. 21° Act. 20.5°	▶ ⌚
Window South	closed	🔒	
Window North	open		

Pop-up window

Sun. 06.04.08
Favourites
Central light off
Party switching on
Central blinds up
Scene TV
Scene dinner

Favourites



MyTouch

Function display Devices in a room and their status can be seen at a glance. All functions can be directly operated from this display.

Pop-up window Detailed information and operating elements do not open up on a further level but within a pop-up above the list view. That ensures a clear operation.

Favourites A collection point for the most frequently used settings is offered by the Favourites menu item. Light scenes or often used functions for example can be stored here.

MyTouch An individual start screen allows you to configure your own background image and also to centrally place an often used function.

Diagrams Detection and evaluation of consumption data functions with the aid of diagrams. Various values can be displayed according to year, month, day and hour.

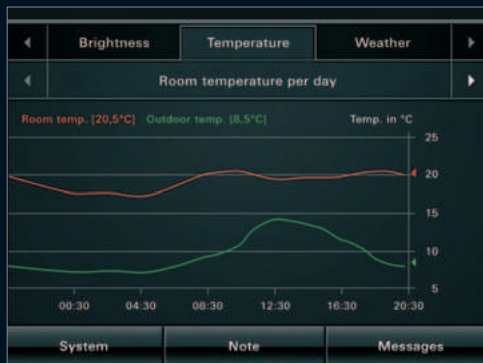
Cameras Seeing who is in the garden or at the gate with one operational step: views from various cameras on the grounds can be called up.

Internet services Find out in the morning whether an umbrella must be packed for the day: weather or news services in RSS format can be displayed by the Gira Interface.

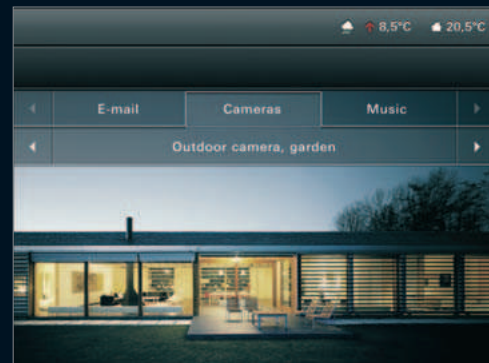
E-mail With the Gira Interface e-mails can be called up, read and sorted.

Music control The operation philosophy of the Gira Interface makes sure your favourite songs are available when you come home from work. A music archive and player are directly integrated.

The new user interface is available starting 12/2008.



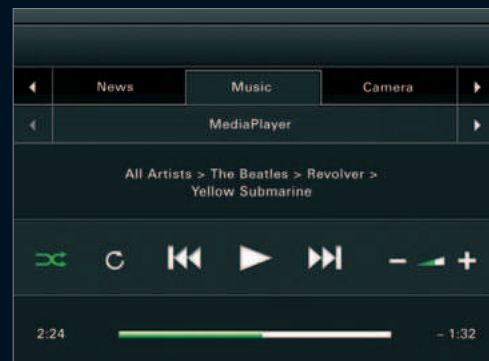
Diagrams



Cameras



E-mail



Music control

Secure@home

A secure home means more security and more living quality since it provides a feeling of safety and lets its occupants sleep peacefully. Intelligent building technology allows a house or a flat to be made secure all round. With the Gira HomeServer 3 it is possible to interconnect alarm systems, motion detectors, smoke detectors, glass-breakage and wind sensors as well as many security-relevant devices intelligently. If the system registers irregularities or dangers, it informs the occupants and automatically initiates countermeasures. For example, it switches defective devices off, retracts the awning during a storm or clears the escape route in case of fire.

- 01 Gira HomeServer 3
- 02 Push button sensor 2
with central-off
- 03 Gira Info-Display 2
- 04 Gira Tectiv 220°



01



02



03



04



2-gang combination Info-Display 2, colour aluminium/
push button sensor 2 as panic switch, transparent white,
Gira Esprit, glass black

Security through camera monitoring One or more IP cameras with which the house and the surrounding area can be monitored effectively can be connected to the Gira HomeServer 3 via the network. If the detectors and sensors register movements during the night or when the occupants are absent, the light is switched on in this area and camera images are recorded. Questionable characters thus do not remain unnoticed. The pictures can then, for example, be followed on the ServerClient 15 or on a TV.

Panic switching If suspicious noises are heard or if the sensors show movement in the garden at night, the panic switch can be pressed rapidly. The circuit is implemented via the Instabus KNX/EIB system and can be set up directly to a push button sensor directly next to the bed. A short push of the button is sufficient to switch on all the lighting in and all around the house immediately and to start recording of the camera pictures. The sudden brightness has a deterrent effect and usually puts burglars to flight.

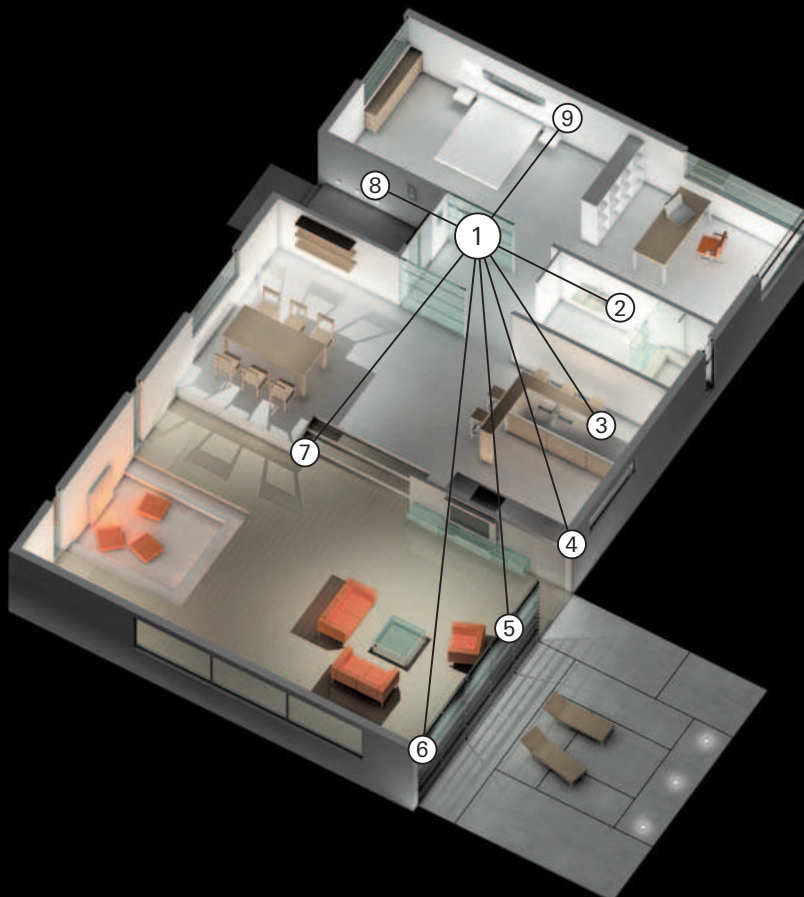
Security in case of technical defects Sensors and technical sensors have important monitoring functions and monitor interconnected appliances, for example stove, refrigerator, dishwasher, deep-freezer or washing machine. If the washing machine leaks, if the door of the deep-freezer is open or if the heating system fails, the Gira HomeServer 3 immediately sends a fault message, for example, to the PC, the Gira Info-Display 2 or the mobile phone. This allows the occupants to react to the problem before greater damage occurs.

Warding off of dangers through smoke and fire If the Gira smoke detectors register dangerous smoke development or fire, the Gira HomeServer 3 becomes active immediately. It automatically takes the first countermeasures and is a decisive help in fleeing, since every second counts in case of danger. The Gira HomeServer 3 raises the blinds and shutters automatically, switches the light in the escape route on, unlocks the front door and ensures ventilation. If the occupant is absent, it also alarms the occupant through a call or SMS.

Storm safety In case of dangerously high wind speeds the wind sensors output a message to the Gira HomeServer 3 that in turn ensures that the house is in a state to withstand a storm. It then automatically retracts the awnings for example, or raises the blinds, closes motor-operated windows, skylights or open garage doors. The shutters on the side of the house facing the wind are lowered.

House empty – everything off When the front door is locked once, the system is informed that the occupants are out of the house. The Gira HomeServer 3 then ensures that the lights are switched off in the entire house, special current circuits, for example for the iron, are switched off and the hot-plates are off. Locking the door twice signals a longer absence. The system then additionally switches the heating and ventilation to stand-by, closes all motor-operated windows and starts the occupied-home simulation.

- 1 Gira HomeServer 3
- 2 Water detectors
- 3 Networked household appliances such as deep-freezer, refrigerator or stove
- 4 Motion detectors
- 5 Door and window contacts, glass-breakage sensors
- 6 IP cameras
- 7 Smoke detectors
- 8 Door locking system with central-off function
- 9 Panic switch and Info-Display 2



Economical@home

Intelligent building technology helps in saving. The Gira HomeServer3 allows for an energy management system that is tailored exactly to the requirements of the occupants. For example, it is possible to create special time profiles for each individual room. These control where and how long heating and ventilation are to run in the house. The system registers that no one is at home, the entire building is set into an economical stand-by mode. In addition, all the operating and consumption data can be recorded, displayed and analysed in order to realise efficient energy management.

- 01 Gira HomeServer 3
- 02 Gira push button sensor 2plus, 2-gang
- 03 Gira automatic control switch
- 04 Gira presence detector



01



02



03



04



Gira SmartSensor, anthracite

Energy management The Gira HomeServer 3 provides energy for the various functions as required. If all the occupants are out of the house, the building is set into stand-by mode in order to avoid unnecessary energy consumption. The heating and ventilation are reduced, devices and lights that may have been left on by mistake are turned off. Specified time profiles are used to make the energy available again exactly when it is needed. For example, certain rooms are heated up half an hour before the occupants return.

Individual room regulation of heating and ventilation With the Gira HomeServer 3 a separate profile can be created for each individual room with the times in which the room is used and should thus be heated or ventilated, for example in the morning and evening in the bathroom. Living areas are heated up during the working week half an hour before occupants return from work and heated continuously on the weekend. The temperature can furthermore be regulated individually at any time using the Gira SmartSensor or the Gira push button sensor 2plus. This results in a temperature control that exactly fits requirements while saving energy. Meaning that the heating and ventilation system never run unnecessarily.

Window open, heating off The system registers by means of door and window contacts when a door or window is opened. After a period that can be set the system then automatically turns down the radiator valve in the corresponding room by means of the Instabus valve drive. The heating is not turned up again until all the doors and windows in the room have been closed again. This avoids unnecessary heating and saves energy costs.

Requirement-specific control of the supply temperature On the basis of the setpoints of the various radiator valves in a building the system recognises whether the supply temperature set for the heating is too high. It then correspondingly corrects the supply temperature downwards automatically. This guarantees optimum energy utilisation and avoids unnecessary costs.

Recording and evaluating consumption data The operating and consumption data, for example for electricity, water, heating oil and gas are recorded and archived continuously by the Gira HomeServer 3. They can then be displayed very simply in a clearly structured graphical form and viewed on the PC. The development during the entire year can thus be documented and an overview obtained at any time. It is easy to determine the average consumption for a specific period and to recognise deviations and trends rapidly. This helps to optimise the energy management.

- ① Gira HomeServer 3
- ② Presence detectors
- ③ Consumption data meters for electricity, water, gas
- ④ Room temperature controllers
- ⑤ Hot water heating
- ⑥ Automatic control switch
- ⑦ Gira SmartSensor
- ⑧ Radiator valve drive
- ⑨ Door and window contacts



Away@home

Everything that is possible within a building is also possible from the outside. For the entire building can also be controlled via the Internet by means of the Gira HomeServer3. The state of the house technology can be monitored and operated by using a laptop or other Internet-compatible devices such as SmartPhone or PDA. Then you can quickly check, for example, whether all the devices are switched off or whether you have forgotten to activate the alarm system. Subsequent changing is possible without any difficulty. And if there is any danger at the house, the system alarms the occupants by e-mail, call or SMS.

- 01 Gira HomeServer3
- 02 Visualisation on a mobile Internet terminal/PDA
- 03 Visualisation on a PC/Mac



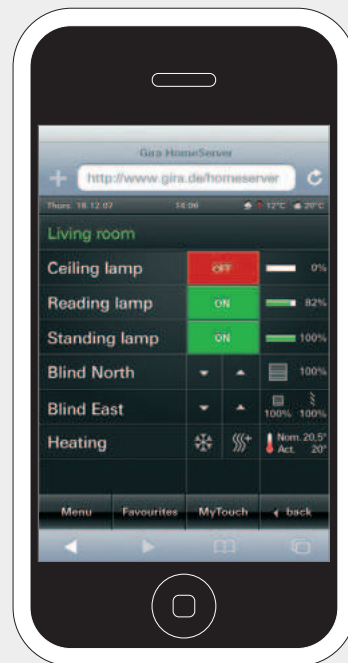
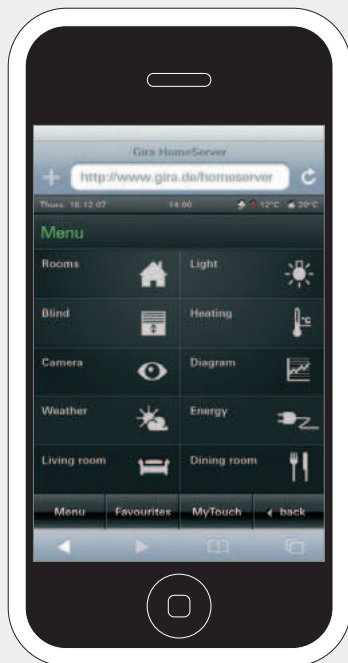
01



02



03



Gira interface on the iPhone
[Interface design: schmitz Visuelle Kommunikation, Wuppertal]

Intelligent building management via World Wide Web The Gira HomeServer3 establishes the connection to the house technology via the Internet using TCP/IP. This means that remote monitoring, checking and controlling of the building technology is possible at any time and anywhere. Whether from the office, from the Internet cafe or while on holiday: The state of the entire house technology can be checked and, if necessary, also changed by means of the PC/Mac or other Internet-compatible devices such as an iPhone, SmartPhone or PDA.

Eliminating risks while away Who hasn't been in this situation: you have hardly left home when you start wondering whether you switched off the stove or iron and whether the alarm system has been activated. This is no longer a problem when the Gira HomeServer3 is used. Via speech output, the state of the house technology can be checked quickly with an iPhone, SmartPhone or PDA. Via DTMF signals of the telephone, devices can be operated and simply switched off if required. The alarm system can also be activated later on.

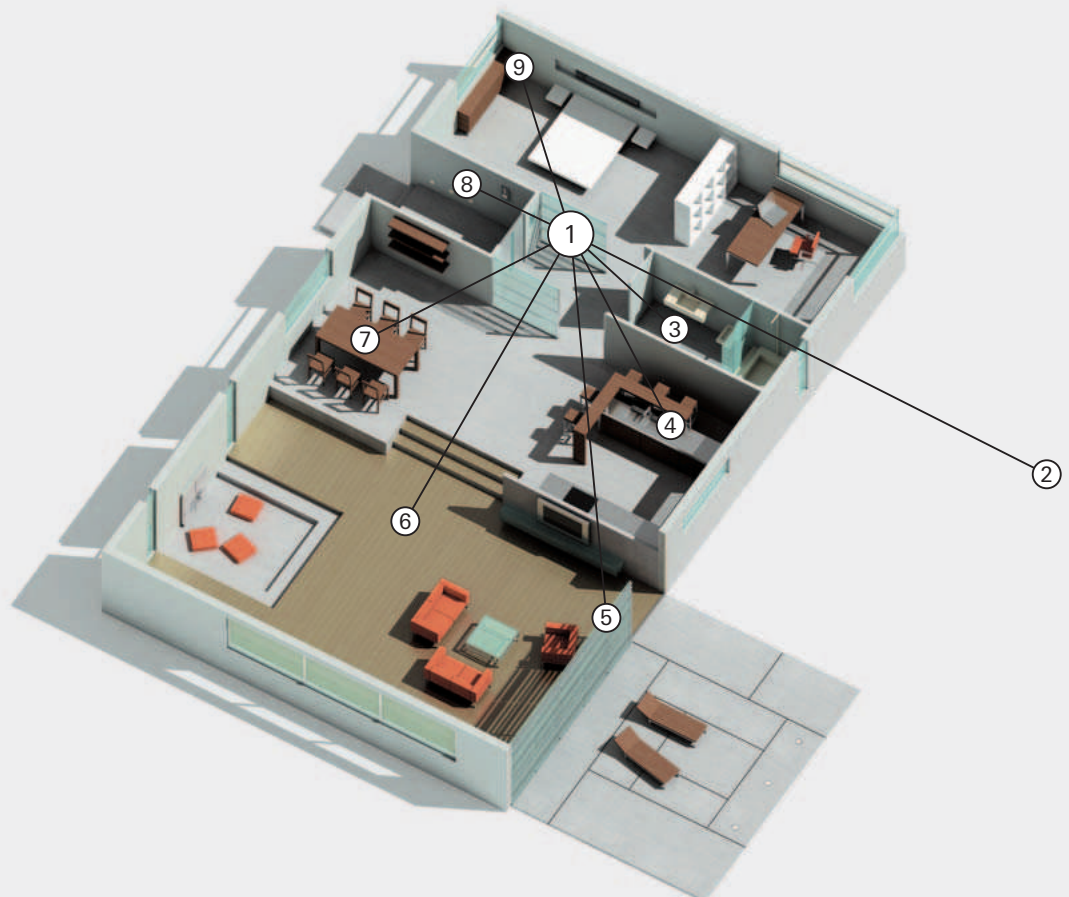
Recognising dangers and triggering an alarm If sensors and detectors, such as glass-breakage sensors, smoke detectors or technical sensors register a danger, the system immediately triggers an alarm and informs the home owner by e-mail, call or SMS. The owner can undertake countermeasures immediately. Similarly the system can, for example, recognise a burglary attempt through glass-breakage sensor and motion detectors and inform the monitoring service by itself.

Door communication and access control by mobile phone If the doorbell rings and no one is at home, the Gira TC gateway transmits the signal to the SmartPhone or to the mobile phone of the occupants. They can then speak to the person at the front door and, in combination with the Gira HomeServer3, view the camera pictures of the door station on the mobile phone as an additional security measure, in order to open the door, if appropriate. Practical, for example, if another occupant has forgotten his or her key or if a service person is to be let into the house.

Carefree holidays During holiday periods the Gira HomeServer3 organises a complex occupied-home simulation. After the house has been left, the system replays the recorded processes automatically, for example of the last seven days. For it has noted when and where lights were switched, the blinds raised or lowered or music was played. This gives the appearance of someone being home, even if that's not the case for a longer period.

Remote programming by an expert The Gira HomeServer3 and the Instabus KNX/EIB systems are programmed by an electrician. In order to implement minor modifications rapidly, he can also access the Gira HomeServer3 of the customer remotely, for example from his office, via the Internet. A fully implemented iETS server is available to him on the Gira HomeServer3. This means that the entire Instabus KNX/EIB system can be programmed via the ETS while the Gira HomeServer3 continues to run in normal mode. This remote programming allows rapid uncomplicated implementation of the customer wishes and avoids unnecessary travel expenses.

- ① Gira HomeServer3
- ② Internet-compatible operating devices, such as SmartPhone, PC/Mac or laptop
- ③ Technical sensor
- ④ Switchable SCHUKO socket outlets, household appliances
- ⑤ Door and window contacts, glass-breakage sensors and motion detectors
- ⑥ Fire and smoke detectors
- ⑦ Scene control with light, blind, heating and music
- ⑧ Door communication system with camera
- ⑨ Room temperature controllers



For commercial properties: the Gira FacilityServer

The Gira FacilityServer is specially designed for the stringent demands of the commercial sector. It allows facilities and building functions to be networked intelligently with each other and the entire Instabus KNX/EIB installation to be monitored, controlled and programmed centrally from the PC. Access and monitoring of the building and facility technology from the outside is also possible without any problem by connecting the Gira FacilityServer to the Internet. In addition, the Gira FacilityServer serves as a data server for higher-level facility management systems, to which it provides saved consumption and operating data for evaluation.

Advantages:

- > Highly efficient facility management with the Instabus KNX/EIB system
- > Interconnection of the facilities and functions via the local network or via the Internet
- > Configuration is carried out via the Gira FacilityServer Expert commissioning software
- > The connected functions are operated via standard software such as Internet browsers or additional clients
- > Visualisation of the building and function structure
- > Investment protection through extensions and software updates

Tasks and fields of use

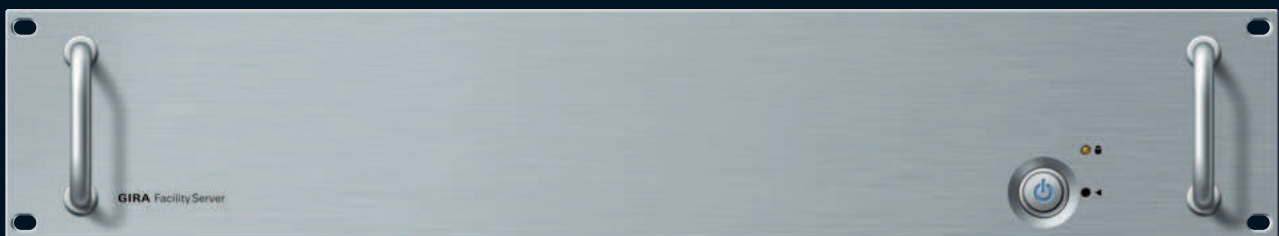
The Gira FacilityServer offers the complete functional range of the Gira HomeServer 3 and is equipped with considerably more memory for its use in the commercial sector. This ensures that considerably larger amounts of data can be saved and more complex extensive visualisations created. In addition it is possible to interconnect several Gira FacilityServer units, so that buildings that are separated from each other can be linked to each other without problems. This means that local and higher-level applications can be coordinated in a complex way.

Use in a 19" rack

The Gira FacilityServer is suitable for installation in a 19" rack. The external power supply unit of the FacilityServer can be securely mounted within this 19" rack. Mounting of a DRA device requires an additional top-hat rail.

System security against attacks from the network

Thanks to its software architecture the Gira FacilityServer is protected excellently against hacking from the Internet. Additional information can be found under www.gira.com/facilityserver



Gira FacilityServer with 19" insert

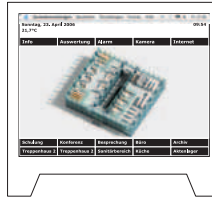
Intelligent@work

The Gira FacilityServer takes over the monitoring and control of the entire Instabus KNX/EIB installation in commercial facilities. It interconnects the various functions and facilities, combines their functions and stores all the consumption and operating data. Repeating sequences can be automated and processes optimised. The intelligent control of the Gira FacilityServer guarantees optimum working conditions at all times and helps to relieve the personnel. However, the state of the building technology can also be viewed comfortably from the PC workplace either as a whole or for a specific floor or an open-plan office and changed directly.

- 01 Gira FacilityServer
- 02 Visualisation and operation via touch screen, PC or Mac



01



02



Central visualisation and control with the PC The Gira FacilityServer makes it possible to clearly visualise the entire building and function structure on the PC. The states of all the devices connected to the Instabus KNX/EIB system can be queried and individual functions and settings can be changed individually.

Individual scene management in every room An individual scene management can be set up separately for each room with the Gira FacilityServer. For example a scene for a lecture with beamer would be appropriate for the conference room. It can then be activated at the press of a button, for example on the Gira push button sensor or the Gira SmartSensor. The blinds are then lowered, the heating or ventilation activated depending on the weather, the screen lowered and the beamer switched on automatically.

Remote controlling and monitoring The Gira FacilityServer establishes connection via the Internet using TCP/IP. This allows the entire building technology to also be monitored and controlled from the outside via PC, Mac, SmartPhone or mobile phone. If the alarm system is triggered or if other dangers exist at the building, the system automatically sends a warning by call, SMS or e-mail to the caretaker or the monitoring service. The state of the facility can then be checked immediately and the required countermeasures initiated.

Automation of sequences through logical links For the simple automation of recurring sequences the Gira FacilityServer offers the possibility of linking using special logic blocks. This allows actions to be set up and combined depending on certain events and measured values. Thus, for example, the system automatically ensures specific building shading after the evaluation of weather and sun position data. This creates not only optimum light conditions, but also prevents the building from heating up too strongly.

Gateway to other function systems The Gira FacilityServer can furthermore be used as a powerful gateway to other facility systems. The consumption and operating data that are recorded, saved and documented by the various functions and the individual connected devices, can be made available to other systems for further evaluation and analysis.

① Gira FacilityServer

② Blinds

③ Brightness sensor

④ Lighting

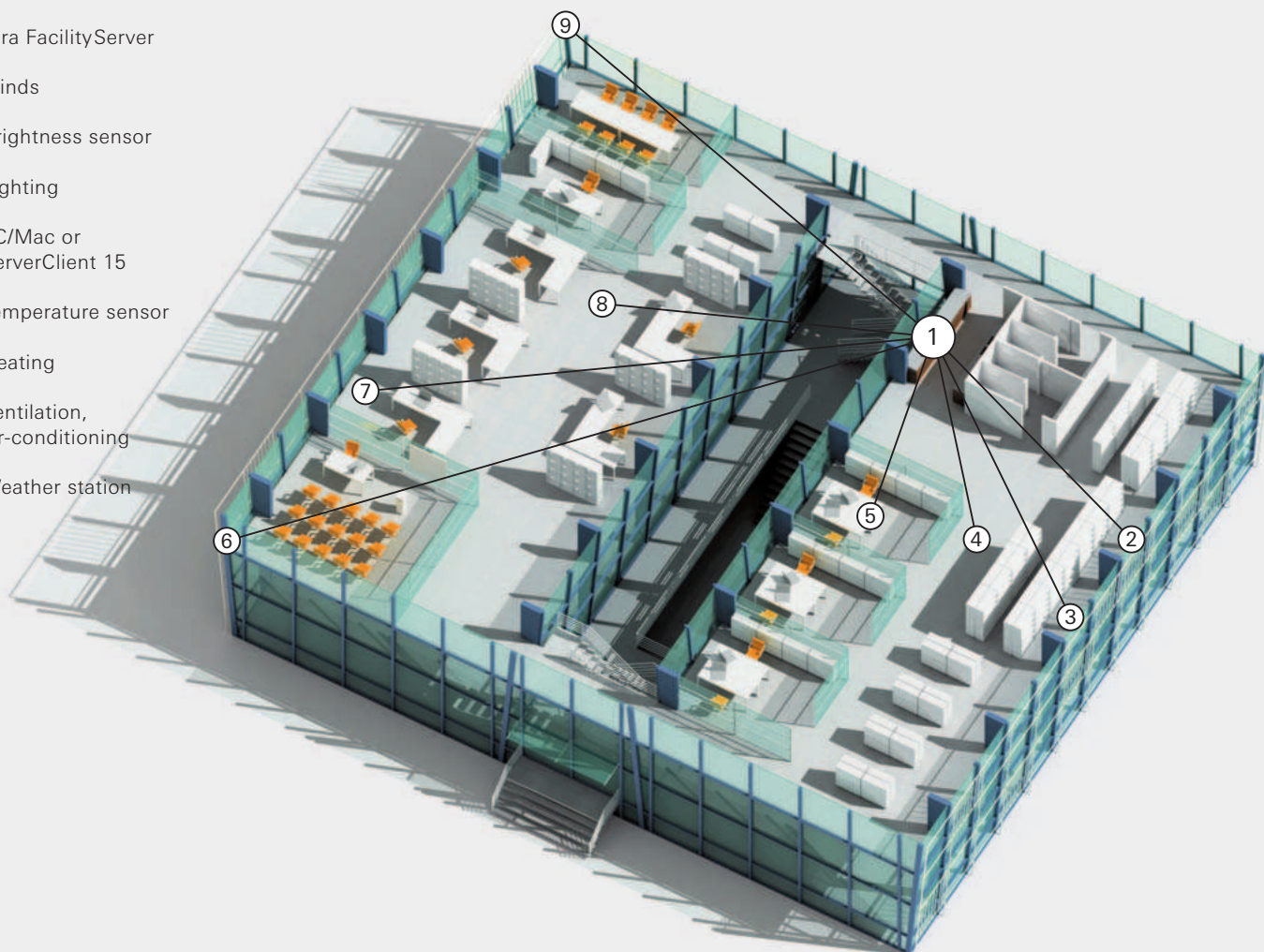
⑤ PC/Mac or
ServerClient 15

⑥ Temperature sensor

⑦ Heating

⑧ Ventilation,
air-conditioning

⑨ Weather station



Efficient@work

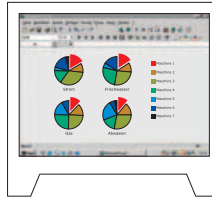
Intelligent energy management is of particular importance in the commercial sector, since it allows capacity to be saved and operating costs to be reduced. The Gira FacilityServer allows requirement-oriented control of heating, cooling and lighting that can be defined individually for each room via time and use profiles. This ensures that power is only used when it is actually needed. This lowers consumption and also ensures optimum working conditions and time savings via automated processes. The Gira FacilityServer can also monitor complex technical facilities and contribute decisively to process optimisation through economy. In the process it documents all the consumption and operating data, thus providing extensive material for further optimisation of the energy management.

01 Gira FacilityServer

02 Visualisation and graphical display of the determined operating and consumption data, for example in spreadsheet programs



01



02



Automatic regulation of heating, cooling and lighting The Gira FacilityServer allows requirement-specific controlling of the heating, cooling and lighting to be set for the entire object and can thus avoid unnecessary energy consumption. In combination with an access control system the Gira FacilityServer recognises, for example, which person has just arrived and correspondingly switches on the heating, ventilation and lighting in the corresponding office. When the employee leaves the building, all the consumers in the respective office are reduced. Rooms that are used seldom can be equipped with presence detectors or automatic control switches. They only leave the lighting, the ventilation or other functions switched on as long as they are really needed.

Efficient time management In order to achieve an economical energy supply, a time profile that describes the requirement-specific times of use can be assigned to each room and each facility. On the basis of these data the system switches on the heating or the air conditioning at the respective time and makes energy available to the facility. Practical lead times are taken into consideration. When the time of use ends, the lighting and the heating are switched off and the facilities are decreased.

Intelligent saving of energy The Gira FacilityServer is capable of influencing the energy utilisation actively by linking determined measured values with specific events. For example, it can initiate direct cooling down of the building at night in summer after having compared in the indoor and outdoor temperatures. This avoids additional running of the air-conditioning in the next morning, thus helping to reduce the energy costs.

Effectiveness through more flexibility The possibility of controlling and monitoring the entire system remotely means that responsible staff no longer has to sit at a specific workplace in front of the screen, but can carry out additional tasks flexibly. Warnings or fault messages are then passed on automatically to the employee on his or her SmartPhone or PDA via WLAN.

Recording and analysing consumption data The Gira FacilityServer records and stores all the consumption and operating data of the facilities and consumers connected to the system multi-functionally. It can pre-sort the data and combine them, for example for a specific period or a building section. The data can be viewed and analysed in a well-structured visualisation on the computer with the aid of extensive diagram functions in order to optimise energy management even further.

Process optimisation The Gira FacilityServer is excellently suitable for process optimisation of larger facilities. In this case it uses technical sensors and sensors to monitor all the automated sequences. In the process it can recognise faults and issue a warning in case of increased energy consumption due to leakages or other defects. In the long term these data can be used for process optimisation. This helps to save operating costs.

① Gira FacilityServer

② Lighting

③ Heating,
air-conditioning,
ventilation

④ Access control system

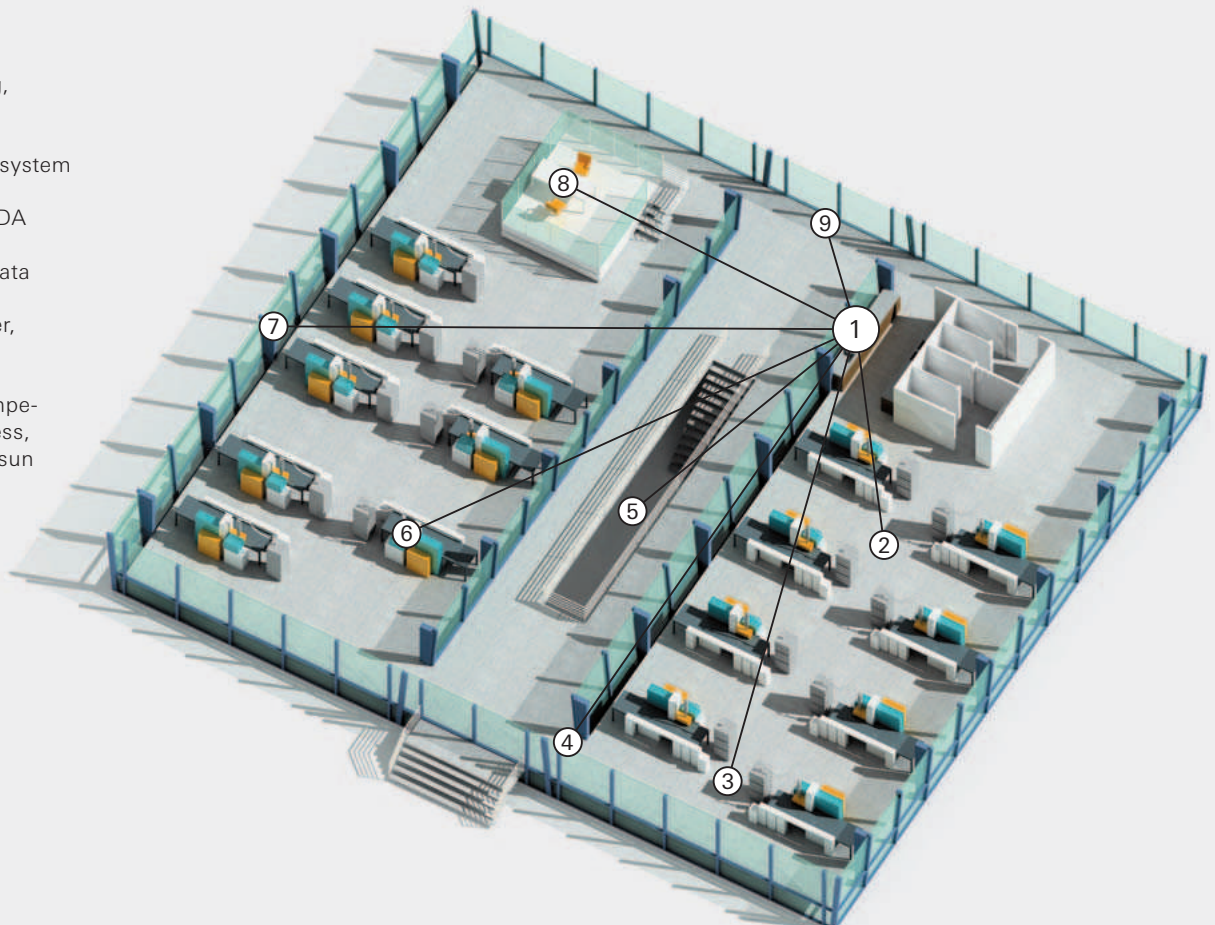
⑤ SmartPhone, PDA

⑥ Consumption data
meters, e.g. for
electricity, water,
heating oil

⑦ Sensors for temper-
ature, brightness,
position of the sun

⑧ PC/Mac or
ServerClient 15

⑨ WLAN access
point



Secure@work

Security is extraordinarily important in the commercial field, because high-quality equipment and large facilities have to be protected and business secrets kept. The Gira FacilityServer ensures security on the highest level. Detectors and sensors as well as IP cameras can be interconnected through it. They monitor the entire building on the inside and outside as well as the technical facilities. If they register an irregularity or danger, the Gira FacilityServer then triggers an alarm and takes the first countermeasures. In the case of leakage, overheating or violation of the limits, a detailed fault message is displayed immediately, for example on the PC monitor. The system thus offers the possibility to respond rapidly to problems before greater damage occurs.

- 01 Gira FacilityServer
- 02 Fault message and camera picture of the defective facility directly on the monitor



01



02



Securing a building against external dangers If no-one is in the company at night or on a holiday, detectors, sensors and IP cameras monitor the building. If the IP cameras, for example of the company Mobotix, register changes within a specific picture area, such as unauthorised persons on the grounds, they send a message to the Gira FacilityServer. This then switches on the outside lighting, if appropriate, records the camera pictures and alarms the monitoring service. The service can then view these pictures via a SmartPhone or a PDA and get a first impression.

Camera-supported process and facility monitoring Sensitive and vulnerable areas can be monitored directly by means of IP cameras. The cameras are connected to the system via the Gira FacilityServer. If a fault occurs, the monitor displays not only a fault message, but also directly the camera picture of the respective facility area. If, for example, a pipe leaks, the scope of the damage can already be recognised on the monitor.

Recording and passing on of fault messages In order to prevent a larger fault or even a failure, it is important that corresponding sensors, for example for temperature, humidity, pressure or fill level, monitor the technical facilities and warn in time if certain limits are exceeded. If, for example, the air conditioning fails in a control cabinet and the temperature rises too high, the technical management receives a warning in good time and can take corresponding precautionary measures.

Warding of dangers by means of specific countermeasures If, for example, facilities fail or another dangerous fault occurs at night when no-one is present, the Gira FacilityServer automatically informs the monitoring service by SMS, e-mail or by a phone call. Specific countermeasures, such as switching off overheated machines and devices, can also be initiated automatically.

Including systems for safety lighting The escape route lighting and escape route guidance systems, for example of the company Inotec, can be linked to the system. This allows additional information from these systems to be passed on to the Gira FacilityServer. Faults such as light or battery failures can thus be passed on directly to the technical personnel, for example onto a mobile phone.

① Gira FacilityServer

② Door and window contacts, glass-breakage sensors

③ Water detectors

④ Smoke detectors

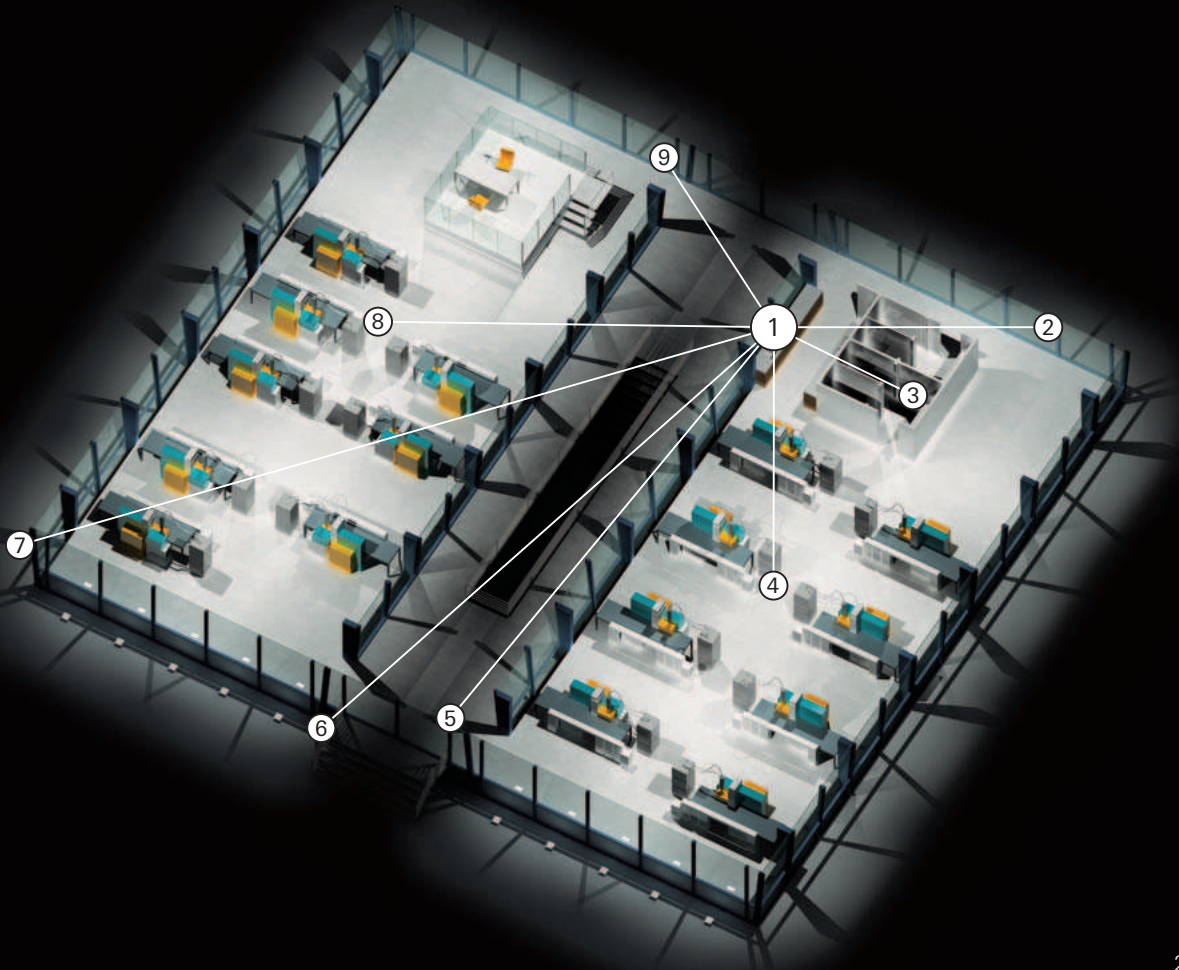
⑤ Motion detectors and sensors

⑥ Access control via Gira Keyless In

⑦ IP cameras

⑧ Sensors for air quality, temperature, humidity, pressure, fill level

⑨ Weather station





Functions

- Secure access procedure: Identification via phone number, user name, IP address and PIN
- Can be updated
- Administration of 200 users, multiple login under one user name is possible
- Cyclic/triggered data recording (for example, temperature courses, elapsed-hour meters, fill levels) and graphical display
- Mathematical functions (for example, adding, subtracting, multiplying, dividing)
- Saving and calling up light scenes
- Time clocks, week program, public holiday calendar
- Switching via phone call
- Self-teaching occupied-home simulation
- Remote programming via network, Internet and data communication
- Sending of ASCII texts to the Gira Info-Display 2
- IP coupling of the Gira HomeServer 3 with external products which can generate or process own IP messages for controlling
- Low-wearing, because of no moving parts such as ventilators or hard disks
- Graphic logic editor: Allows, for example, copying of module groups across projects, creating of any number of work sheets. More than 80 logic blocks

- Communication objects: Data transfer from ETS by means of OPC file. Importing and exporting of communication objects as a CSV file
- Universal time clock: In addition to further functions allows several switching points per clock, usage of placeholders in day, month, year as well as activating and deactivation via communication object. Including astro and random function.
- Data backup/restoring of retentive data
- 14-byte EIB texts: Evaluation through comparison with text string. Use in SMS, e-mails or status page.
- Receipt of IP messages: Specification of an address range, extraction of 14-byte EIB texts, assignment to 14-byte EIB texts
- Operation and status display via Agfeo telephone system
- Bus access also via EIBnet/IP protocol
- Evaluation of Web pages and web-based IP devices (reading/writing)
- iETS server: Remote programming of EIB systems (secure operation possible through checking of the sender IP address), enabling of the iETS function via communication object, HomeServer continues to run during programming via iETS without limitations and also continues to carry out switching actions, the process image also remains up-to-date

Further information is available in the Gira catalogue or under www.gira.com/homeserver

Connection possibilities

- 1 serial interface
- 1 RJ 45 network connection, 10/100 Mbit Ethernet
- To the Instabus KNX/EIB system via: Flush-mounted bus coupler 2 Order No. 0645 00
- Instabus data interface FT 1.2 Order No. 0504 ..
- Instabus RS-232 connection cable Order No. 0906 00
- ISDN modem integrated (1x EURO-ISDN-S0 RJ45 for direct connection to the NTBA or S0 of the telephone system)

Commissioning software

- The Gira HomeServer 3 Expert for operating systems from Windows XP™ to Windows Vista™ including Internet Explorer
- Adoption of the ETS group addresses
- Inclusion of graphics programs

Scope of delivery

- Power supply unit with connection cable, ISDN connection cable, null modem cable
- Brief instructions
- Gira HomeServer 3 Net

Technical data

- Protection type IP20
- Operating temperature 0° C to +40° C
- Power consumption approx. 15 W
- Dimensions W x H x D 215 x 88 x 270 mm

Functions

- Voice message via phone call: e.g. for alarm processing
- DTMF operation: acknowledgement of commands and operation via DTMF signals of telephone
- Configuration: only an expert for HomeServer 3 and FacilityServer
- Global library: exporting and inserting of components in other projects for the functions visualisation, menu, query, logic, diagrams, EIB/IP telegrams and web pages/IP devices
- Diagrams: storing in master data for classification in menu and visualisation, additional extension of functionality and visualisation
- Project import of archives without additional unpacking
- Logic collection: new structure and extension with 30 logic modules for often required functions
- Communication object gateway: new interface for access of external programs, predestined for connection of other manufacturers' systems and for troubleshooting
- Printing function for project data allows written documentation
- Automatic reconnect with Windows client: after reprogramming the client automatically contacts HomeServer and FacilityServer
- Saving retentive data: cyclic storage with up to 2 FTP servers, frequency of archiving can be set, day and month-based archives can be stored
- Extension and adaptation of online help

The update can be downloaded at www.download.gira.com



Functions

- Extended RAM as well as extended data memory (flash memory)
- Secure access procedure: Identification via phone number, user name, IP address and PIN
- Can be updated
- Administration of 200 users, multiple login under one user name is possible
- Cyclic/triggered data recording (for example, temperature courses, elapsed-hour meters, fill levels) and graphical display
- Exporting of the data or alarm records in the Excel™, CSV, HTML or XML format
- Mathematical functions (for example, adding, subtracting, multiplying, dividing)
- Saving and calling up light scenes
- Time clocks, week program, public holiday calendar
- Switching via phone call
- Remote programming via network, Internet and data communication
- Sending of ASCII texts to the Info-Display 2
- IP coupling of the Gira FacilityServer with external products which can generate or process own IP messages for controlling
- Graphic logic editor: Allows, for example, copying of module groups across projects, creating of any number of work sheets. More than 80 logic blocks

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- Universal time clock: In addition to further functions allows several switching points per clock, usage of placeholders in day, month, year as well as activating and deactivation via communication object. Including astro and random function.
- Data backup/restoring of retentive data
- 14-byte EIB texts: Evaluation through comparison with text string. Use in SMS, e-mails or status page.
- Receipt of IP messages: Specification of an address range, extraction of 14-byte EIB texts, assignment to 14-byte EIB texts
- SNMP: Reading out of numerical and 14-byte EIB texts, setting of numerical and integer values as well as texts, sending of SNMP traps via command and optional ColdStart trap when starting the FacilityServer
- Operation and status display via Agfeo telephone system
- Bus access also via EIBnet/IP protocol
- Evaluation of Web pages and web-based IP devices (reading/writing)
- iETS server: Remote programming of EIB systems (secure operation possible through checking of the sender IP address), enabling of the iETS function via communication object, Gira FacilityServer continues to run during programming via iETS without limitations and also continues to carry out switching actions, the process image also remains up-to-date

Additional information is available in the Gira catalogue or at www.gira.com/facilityserver

Connection possibilities

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Instabus data interface FT 1.2 Order No. 0504 ..
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Commissioning software

- The Gira FacilityServer Expert for operating systems from Windows XP™ to Windows Vista™ including Internet Explorer
- Adoption of the ETS group addresses
- Inclusion of graphics programs

Scope of delivery

- Power supply unit with connection cable, ISDN connection cable, null modem cable
- Brief instructions
- Gira FacilityServer
- 19" insert with aluminium plate

Technical data

- Integral ventilator, temperature-dependent control
- Protection type IP20
- Operating temperature 0° C to +45° C
- Power consumption approx. 15 W
- Dimensions W x H x D 483 x 88 x 270 mm

Functions

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- Extension and adaptation of online help

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Supplementary information

Note

The data, solutions and applications used here are based on the software version 2.1. Subject to technical modifications.

Cooperation partner for the ServerClient 15

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