SKY-WALKER 3

Version 3.20.2.0

WHAT'S NEW?

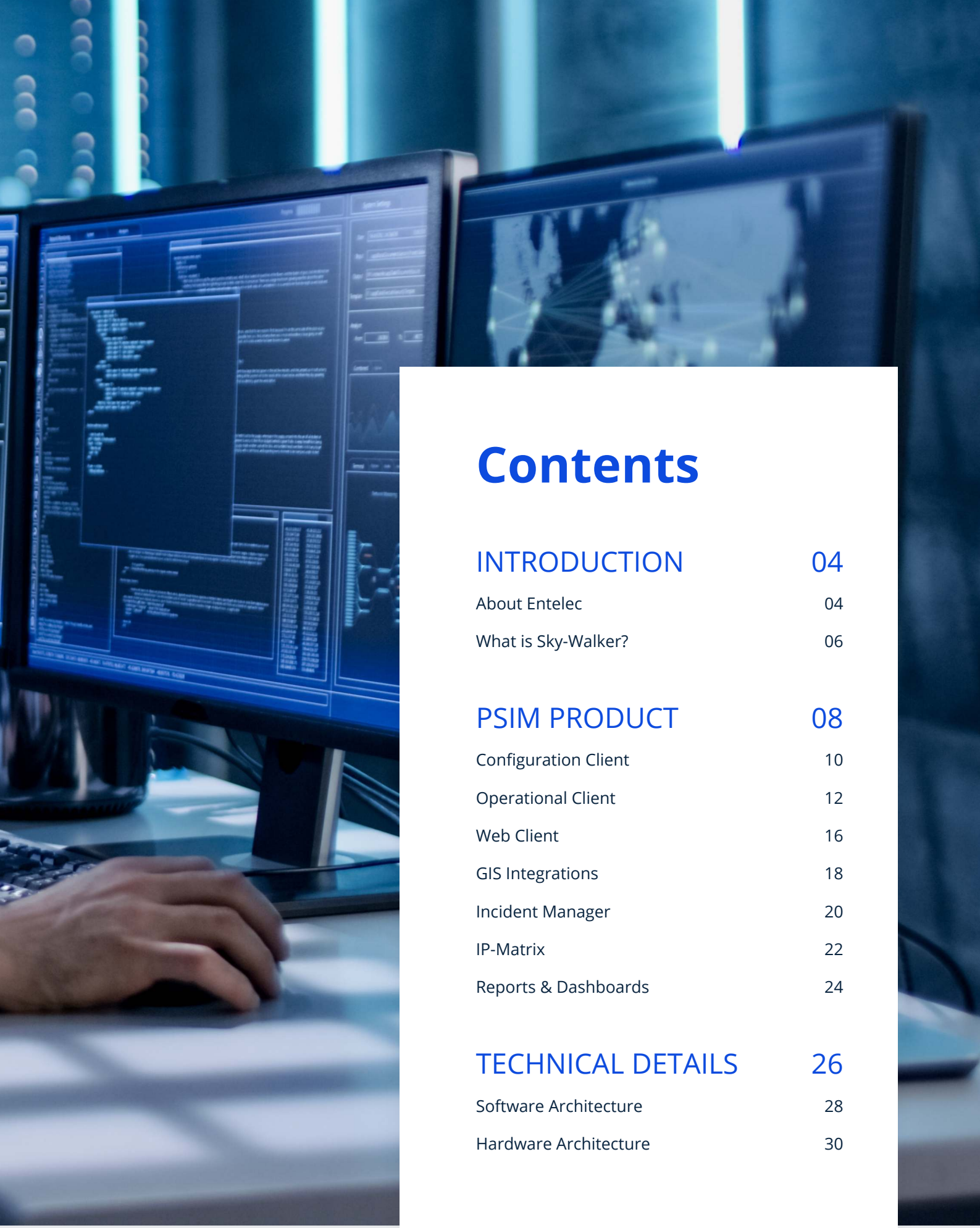
The development of the Incident Manager to handle all your incoming incidents.

Sky-Walker Core updates for easier configuration and a better user experience.

Building Software That Matters.

WHY CHOOSE OUR PSIM PLATFORM?

With over 30 years of experience in developing PSIM solutions, we became experts in building reliable and modular security software components. Choosing our PSIM software means easy installation and configuration, but also low long-term maintenance costs. Together we can build the software that matters to you.



Contents

INTRODUCTION 04

About Entelec 04

What is Sky-Walker? 06

PSIM PRODUCT 08

Configuration Client 10

Operational Client 12

Web Client 16

GIS Integrations 18

Incident Manager 20

IP-Matrix 22

Reports & Dashboards 24

TECHNICAL DETAILS 26

Software Architecture 28

Hardware Architecture 30

Introduction

ABOUT ENTELEC

Entelec was founded in 1992 by Miet Loix. For almost 30 years, we have been active in the field of Open Integration of systems using our own software platform called Sky-Walker. We have been able to develop many beautiful and often large projects for our customers.

We have roots in over 4 countries starting from Belgium HQ, the Netherlands, France, and the UK. From those different locations, we are able to reach customers all over the world and support their needs in terms of security and safety matters. The goal and mission of Entelec is for Sky-Walker to become a global PSIM platform used by many security operators worldwide.

ISO 27001:2013 & 9001:2015 CERTIFIED

We are the proud owner of the ISO 27001:2013 & 9001:2015 certificates. This means that our processes are audited for a quality check each year to make sure that both our internal and external way of working are up to the highest standards.

OUR TIMELINE

1992	1993	1997	2006	2011	2018
Founded Entelec	First Project	R&D Department	Worldwide Product	International Offices	Future Proof

OUR OFFICES

Although there are Sky-Walker installations in more countries than we can count, we mostly focus on western Europe.

More precisely Belgium, France, the Netherlands, and the United Kingdom. In each of these offices, there are experts in charge of providing the best solutions for our customers.

Our offices strongly believe in teamwork to support the need of today's PSIM market.

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CORE VALUES

INNOVATION

Our R&D team is constantly looking for innovation by experimenting with the latest technology trends.

EXPERIENCE

For more than 30 years, our integration projects have been a success thanks to a team of experts

CUSTOMER SATISFACTION

We guarantee a sustainable quality relationship with all our customer's thanks to our ISO certifications.

What is Sky-Walker?

Buildings are equipped with a lot of diverse technologies, usually from different manufacturers. Managing all these technologies using the specific management tools of the separate systems can be very complex and time-consuming.

Our Sky-Walker Open Integration Platform provides one solution for the management and control of all separate systems and technologies, within buildings or at multiple sites, by combining them under one open, powerful, and intuitive user interface. With Sky-Walker all your Building Management Systems (BMS) will be underneath the same roof.

Most of these systems can be grouped into 3 main domains, comfort management, security management, and safety management. Have a look below for more details about what each domain entails and how it can be beneficial for your business.

SAFETY

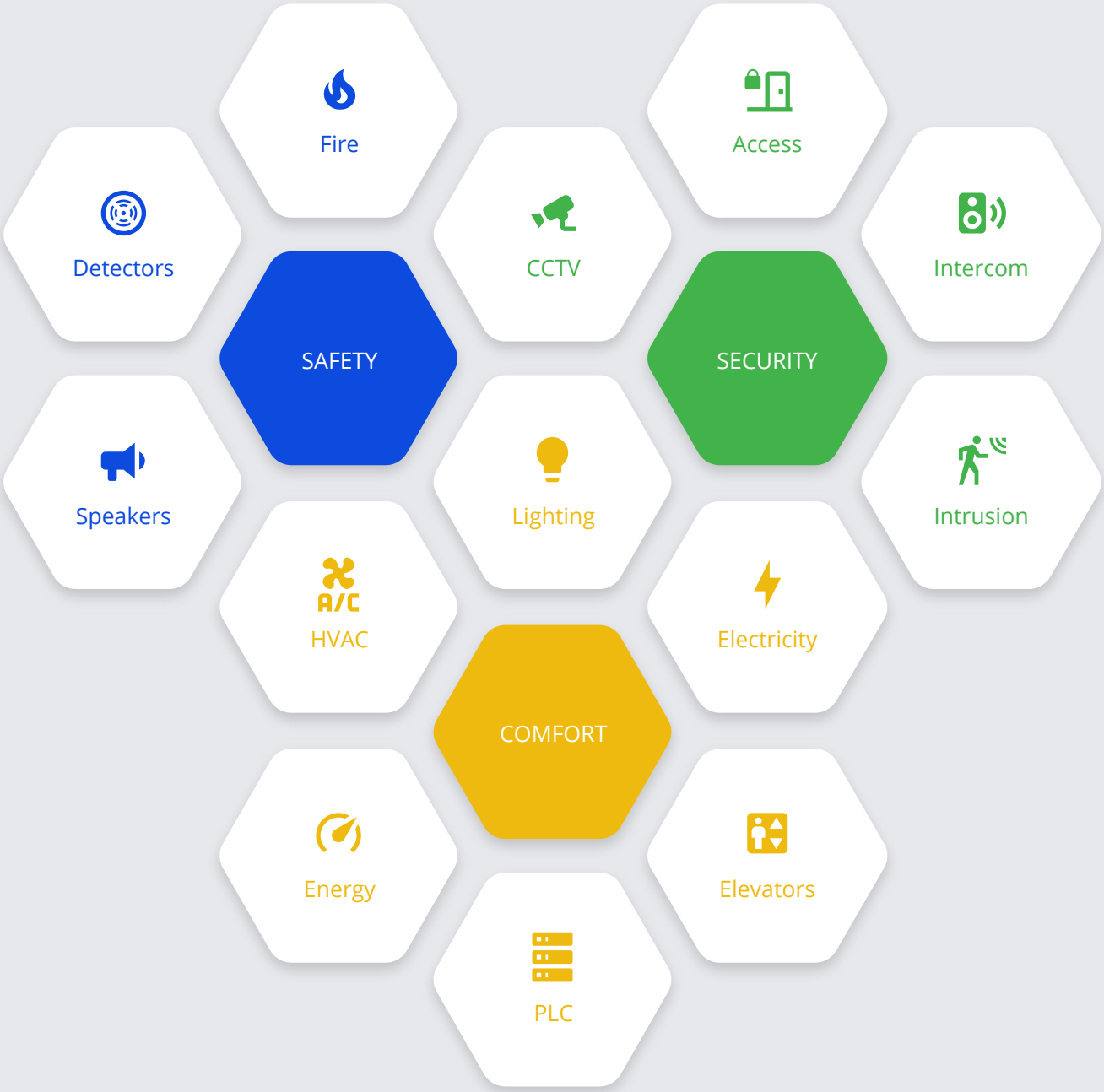
Safety Management systems are designed to manage safety elements in the workplace. Thanks to its open integration infrastructure, Sky-Walker connects and integrates with any type of safety management system such as a public address, alarm messaging, evacuation systems, fire and hazard detection, and many more.

SECURITY

Security Management relates to the security of buildings, people, and assets, as well as to the protection of information, network, and telecommunication systems. Traditionally, Physical Security Information Management (PSIM) software provides a platform to integrate multiple security subsystems and devices like CCTV, access control, intrusion, intercom, etc.

COMFORT

Comfort Management typically relates to systems that control the building climate. Think of heating, ventilation, air conditioning, cooling, and humidification for example. Together with other kinds of comfort management systems like lighting, energy consumption, and electricity, Sky-Walker is able to keep an overview of the comfort level within buildings.



With Sky-Walker, we can provide our customers the potential to fully control all their Building Management Systems (BMS) with maximum efficiency.

PSIM PRODUCT

Configuration Client 10

Operational Client 12

Web Client 16

GIS Integrations 18

Incident Manager 20

IP-Matrix 22

Reports & Dashboards 24

DISCOVER OUR PRODUCT

Our PSIM Product is the result of 30 years of R&D and development to make sure that Sky-Walker can compete in today's PSIM market. Over the years we have finetuned all the features based on valid customer data and personal knowledge of the PSIM field.

Configuration Client

WHAT IS IT?

The Configuration Client is a .NET application that allows changes to the system at any time. Of course, this depends on the access level of the user. Each user can be given certain access rights within the Configuration Client. This application is common when your organization has a complex hierarchy and thereby needs to manage the tasks and delegation of multiple security operators.

In short, this application allows you to be able to configure all the functionalities of your Operational Client. These customizations manifest themselves directly in the GUI or also called Graphical User Interface.

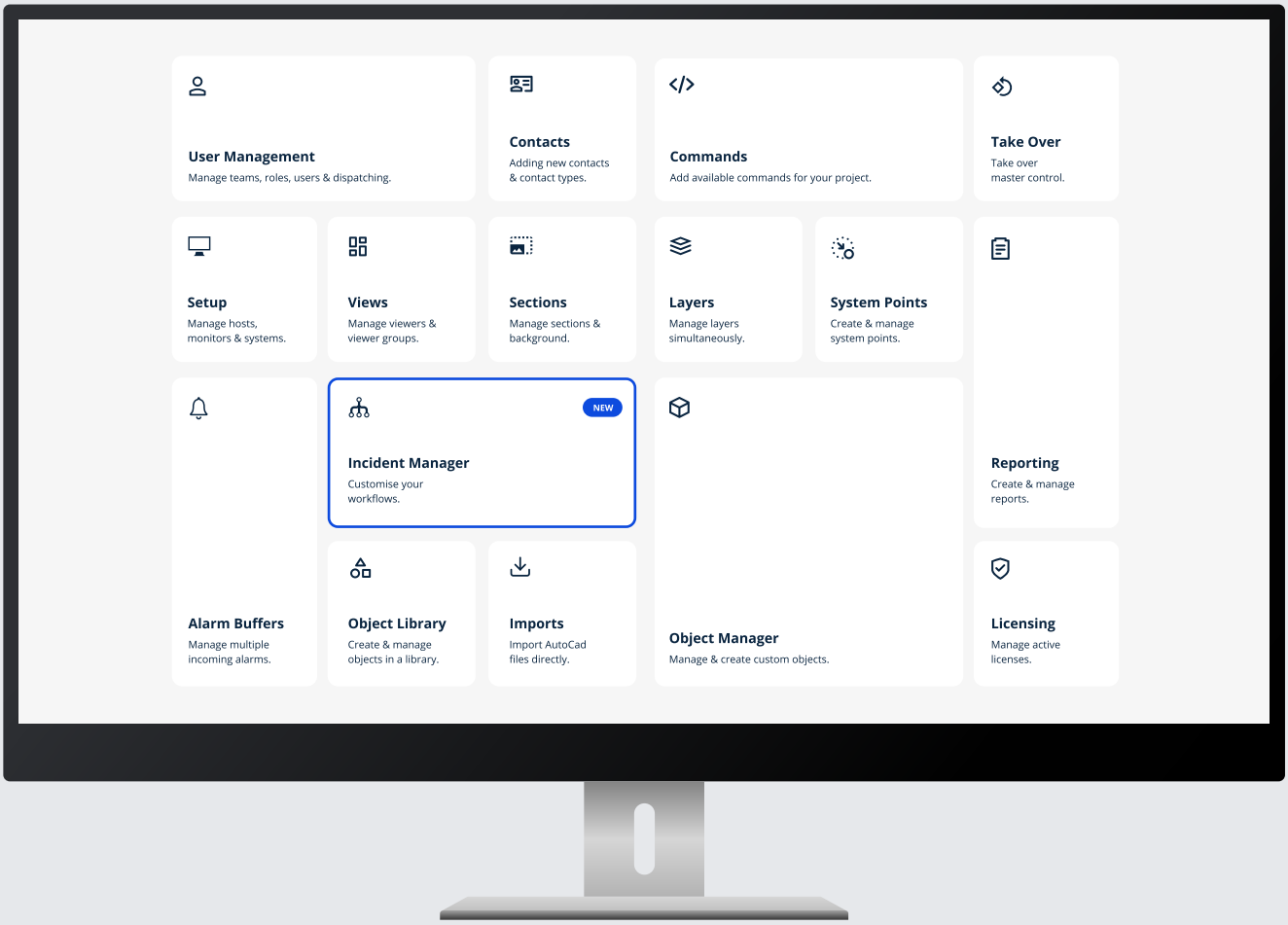
No programming knowledge is required to complete the configuration of your PSIM project and with the help of the available installation tools, Sky-Walker can be easily configured to the customer's requirements. Once configured, your operators can immediately start working within your control room.

WHY USE IT?

Our Configuration Client allows you to configure your PSIM project the way you want it. The strength of this application is its flexibility. Each project has unique needs that may require custom configurations. The look & feel, functionalities, and other unique business logic are completely configured within the Configuration Client.

IS IT EASY TO MANAGE MULTIPLE USERS?

Each user of the Sky-Walker Integration Platform logs in with their own unique ID and password. After a user profile is created, user rights can be assigned in the process. These user rights ensure that each operator only has access to the systems and information within a predefined environment. For example, the operator responsible for all HVAC systems has access only to the plans that include HVAC objects, while the operator responsible for security has access to all CCTV systems. However, admins or administrators do have full access to all systems that are currently available in the building.



Configuration Client homepage for your control room

WHAT ARE THE FEATURES?

- Create & manage users
- Add custom commands
- Take over master control
- Create & manage system points
- Manage all your Sky-Walker layers
- Manage viewers & viewer groups
- Manage hosts, monitors & systems
- Setup multiple alarm buffers
- Object library management
- AutoCAD import tool
- Manage all you licenses
- Report & dashboard configuration
- Manage sections & backgrounds
- Customize your procedures

Operational Client (1/2)

WHAT IS IT?

Used by multiple operators worldwide, our Operational Client is the most advanced application of our PSIM software platform. The application uses all the features of our PSIM software Sky-Walker and is fully customizable for any type of project. The Operational Client is used in both large and small control rooms.

The advantage is that the Operational Client can be used as a Desktop App, but also as a Web App. Our Web Client allows you to work with a limited version of Sky-Walker directly in your browser.

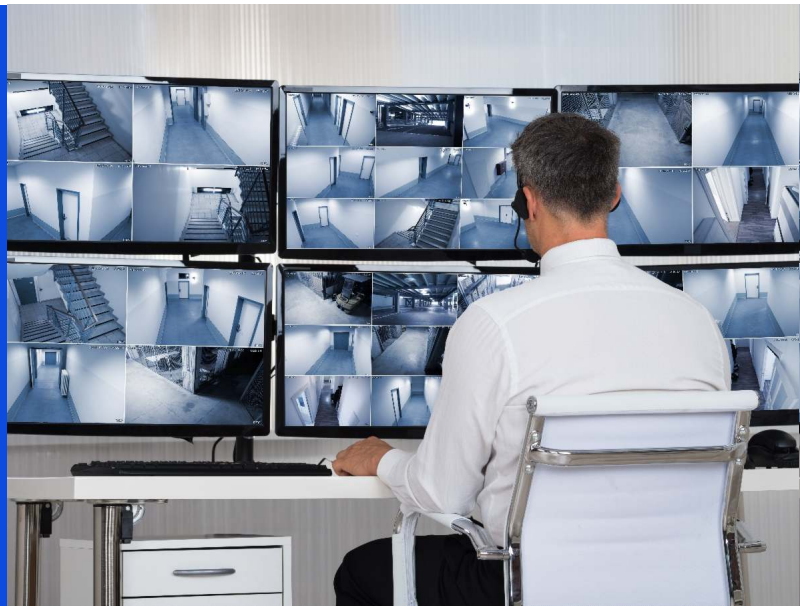
The Operational Client is the PSIM software used by security operators to control, manage and monitor connected systems. The application has a Graphical User Interface (GUI) available that visualizes GIS maps and existing floor plans and allows them to navigate through different buildings. The GUI of our PSIM software is often configured on two or three monitors. We recommend a setup where the floor plans and navigation are displayed on the left monitor and the handling of alarm procedures and incidents on the right monitor. Optionally we would advise using a third monitor for our IP-Matrix CCTV solution.

HOW MANY MONITORS?

Monitor 1: Navigation for floorplans and interactive GIS maps

Monitor 2: Managing alarms & incidents using our Incident Manager

Monitor 3: Display live camera streams using our IP-Matrix CCTV solution



THREE WAYS OF NAVIGATING WITH SKY-WALKER

ALARM BUFFER

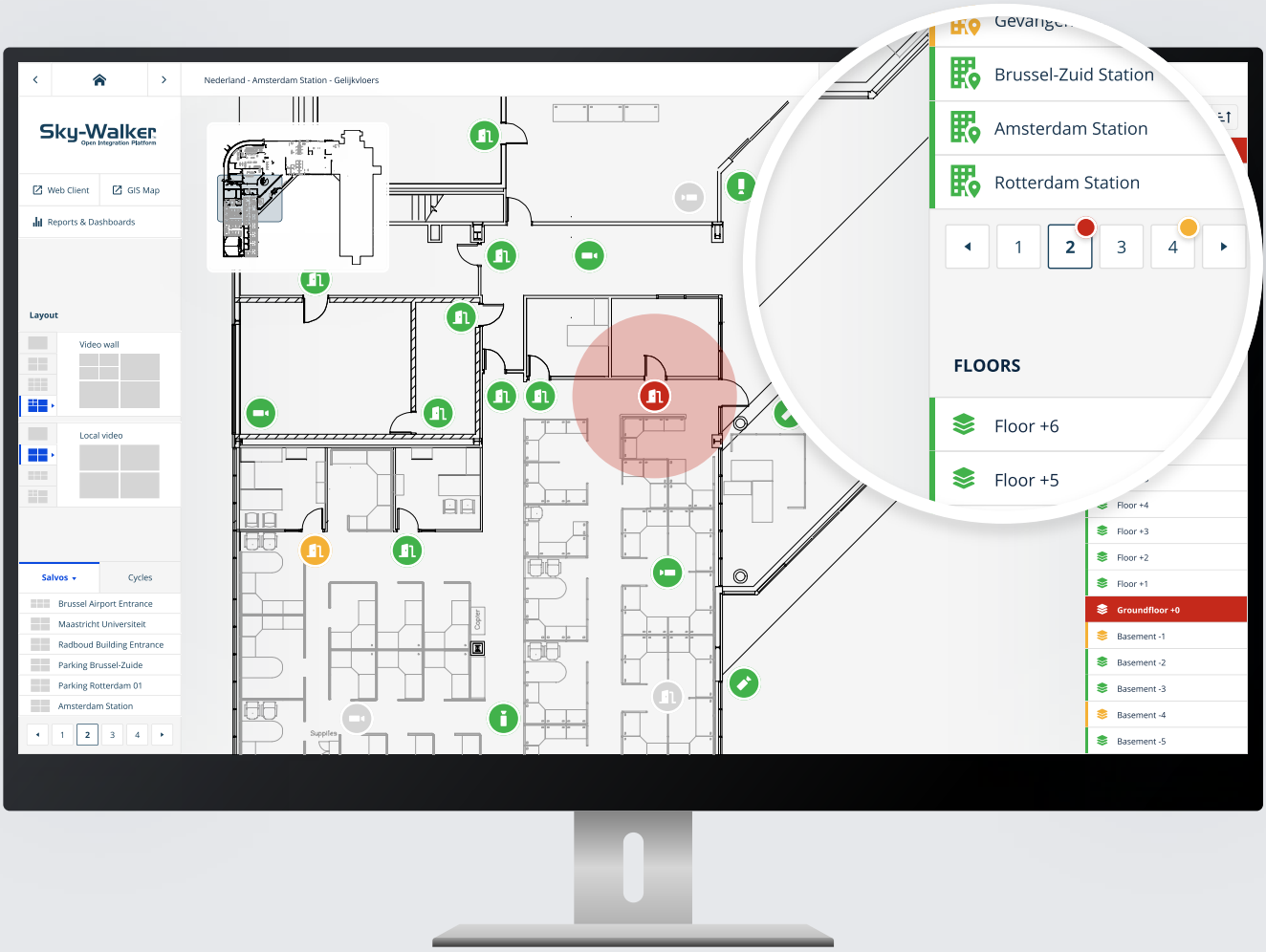
The alarm buffer allows a user to automatically navigate to the screen where the alarm occurs.

NAVIGATION BUTTONS

These are Sky-Walker buttons that can be used to navigate to different screens within the application.

TREEVIEW

This type of navigation is beneficial when there are many nested hierarchies of multiple subsystems.



Operational Client monitor 1 for your control room

WHAT ARE THE FEATURES OF MONITOR 1?

- Manage systems on your floorplans
- Customize IP-Matrix layout
- View reports & dashboards
- Toggle between floorplan & GIS maps
- Easy navigation through your building
- Realtime alarm notifications
- View camera salvos and sequences
- Toggle object filters on the map
- Thumbnail plan overview
- Interact with all your systems

Operational Client (2/2)

COMMAND AND CONTROL

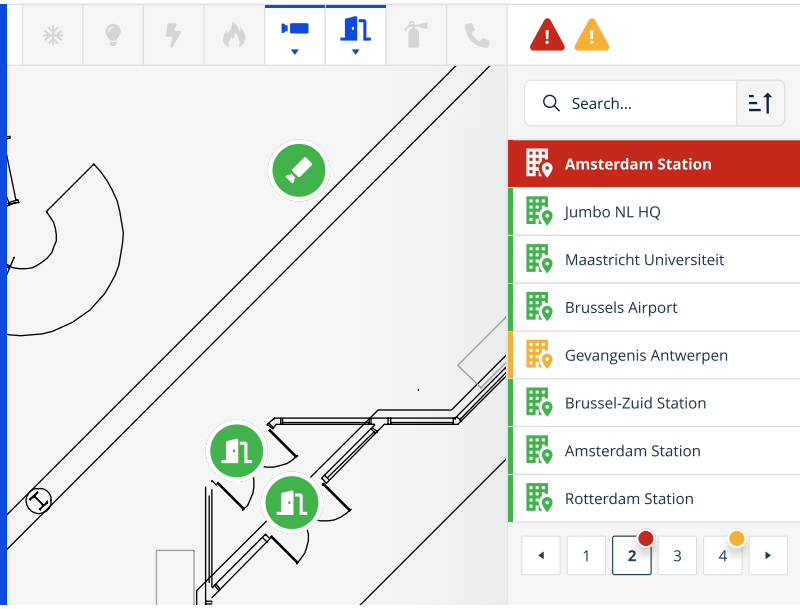
Every connected system has the ability to show a command menu. This menu appears after a right-click on the icon of the subsystem and is uniform for all subsystems.

Examples of possible commands are masking a fire detector, opening or closing a gate, toggling a light, showing a floorplan, showing a camera, hiding viewers, configuring a sequence, and running a salvo, etc.

For each command, a confirmation may be asked whether to execute the command or not depending on the configuration. It is also possible to add extra information when executing a command. Both the confirmation, as well as the extra information are options that can be easily activated or deactivated depending on the command.

WHAT FLOORPLANS CAN BE IMPORTED?

- DWG
- PNG
- JPEG
- BMP
- GIF

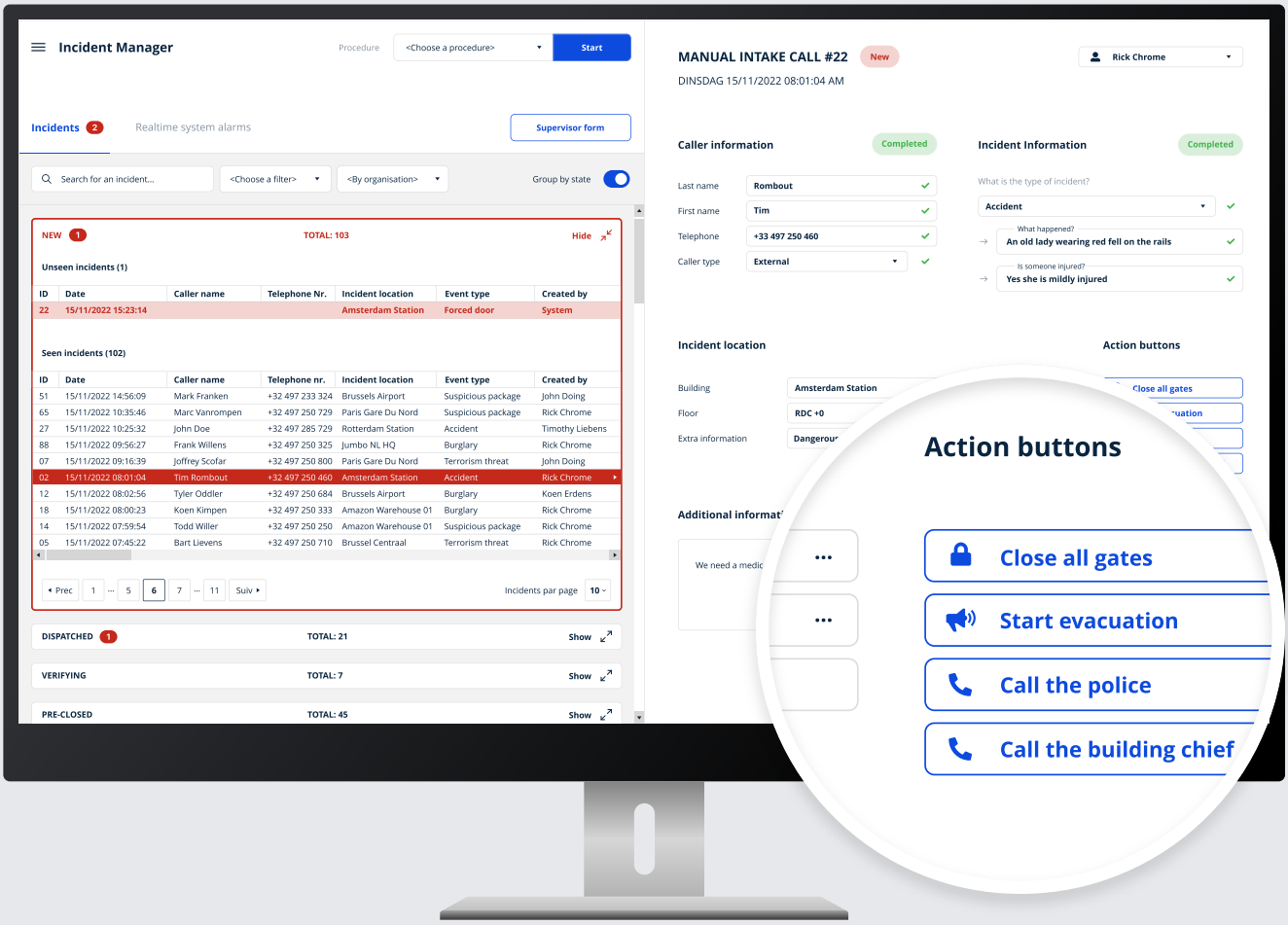


HOW IS THE USER INTERFACE (GUI) CREATED?

With Sky-Walker every customer has the ability the customize the GUI or user interface completely to their preferences with the use of the Configuration Client. The GUI is mainly built for use on Windows but with the Web Client, you can run the most important Sky-Walker features directly in your browser.

The screen setup is entirely user-defined, meaning that the customer can determine the complete look & feel of the software. This includes images, colors, icons, and fonts.

Our in-house graphic design team is also capable of delivering high-quality GUIs that suit your organization's demands.



Operational Client monitor 2 for your control room

WHAT ARE THE FEATURES OF MONITOR 2?

- Handle multiple incidents
- Supervisor form functionality
- Save & transfer incidents
- Send custom incident commands
- Form autocompletion
- Handle realtime system alarms
- Starting pre-configured incidents
- Local video wall integration with IP-Matrix
- Dynamic XAML forms integration
- Advanced search filters

Web Client

WHAT IS IT?

The Web Client is a Web App that can be used directly through your browser. For example, the user can remotely connect to our PSIM software via Google Chrome by entering their login and password. After this, the GUI or user interface is loaded just like the Operational Client or Thick Client.

The Web Client can also be seen as a "light" version of the Operational Client. It includes the most important features such as plan navigation, handling alarms, starting procedures, etc. However, viewing camera streams is limited to the CCTV manufacturer's accessibility. Some cameras simply do not work as well in a web-based environment.

The web server plays a very important role in the architecture of the Web Client since it is the server that stores all the data and sends it directly to the user as needed. This information is directly visible from the graphical interface. So the Web Client is a kind of flexible "window" that you can view on a laptop, PC, smartphone, and tablet wherever and whenever you want.

ENJOY MORE EFFICIENCY

Operators process various events from the subsystems such as video surveillance, access control, camera failure, intrusion, fire, and many others directly on the customer's user interface. Even if the operators are not at their workstations, they can manage these events remotely. The supervisors can monitor all the actions & operations of the operators and have a global overview of their tasks. So their role is to manage the tasks of the operators. Supervisors can change the permissions and add or remove users at any time.

WHY USE THE WEB CLIENT?

ACCESSIBILITY

Unlike the Sky-Walker Desktop App, the Web Client can be accessed anytime and via any device with an internet connection.

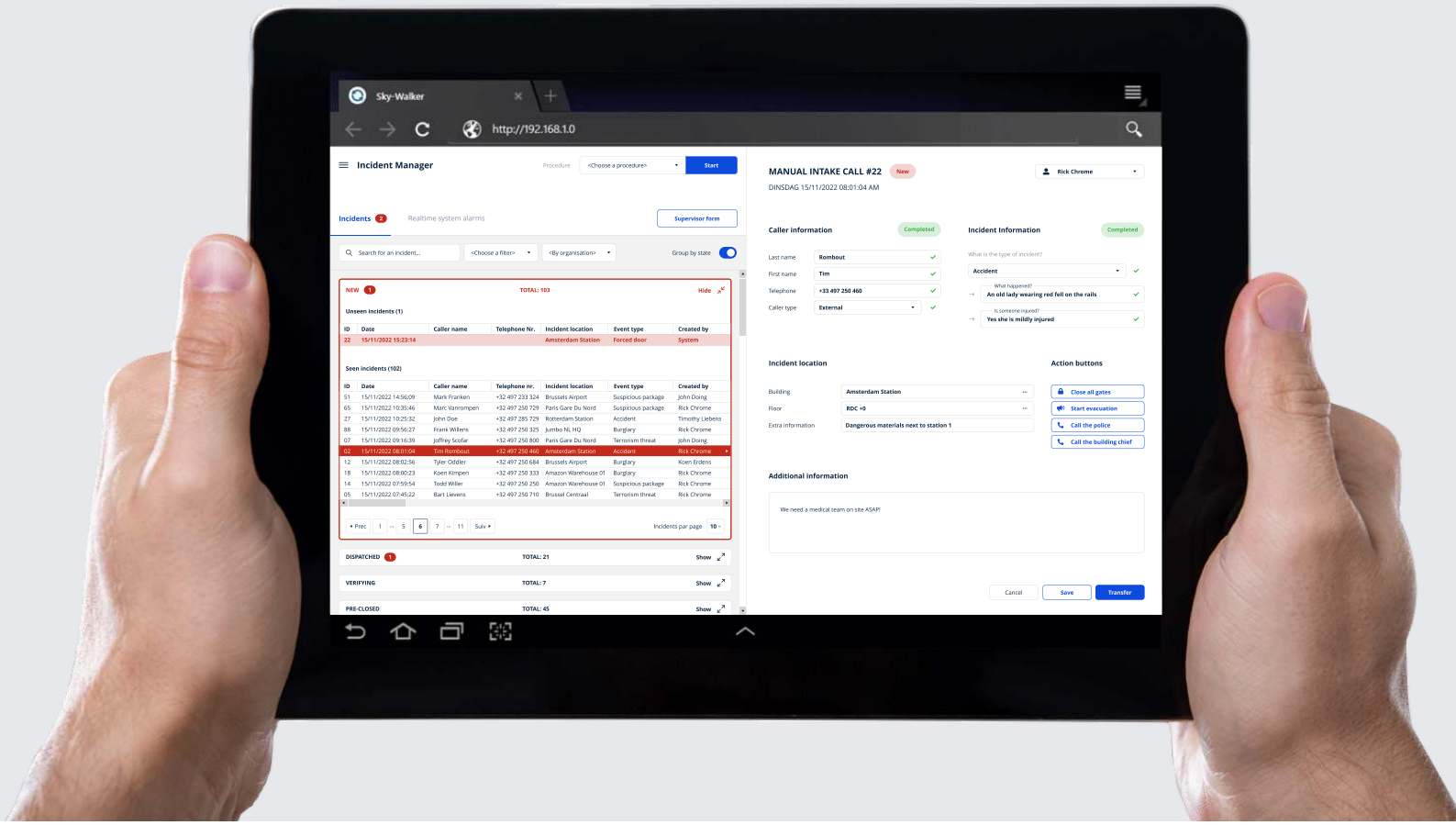
SITUATIONAL

Increase the operator's situational awareness with the Sky-Walker Web Client. Even in the field, the operator will know exactly where he is.

FLEXIBILITY

The operator who handles the incoming alarm is the same operator who must acknowledge the hazard or stress situation.

Web Client for your control room



WHAT ARE THE FEATURES OF THE WEB CLIENT?

- Accessing Sky-Walker from your browser
- Viewing certain cameras remotely
- Navigate on a floor plan & GIS map
- Remotely lock & unlock doors & gates
- Management of CCTV & Access Control
- View and handle alarms
- Starting pre-configured procedures
- Creating and viewing reports
- Configure Web Client users
- Handle incoming incidents

GIS Integration

WHAT IS GIS?

GIS stands for Geographic Information System. This type of system is often suggested for navigating to a location using a map or chart. Think of Google Maps, Waze, and TomTom that you use to navigate on a daily basis. The Sky-Walker GIS integration provides a very intuitive visualization of mobile units and alarms. This integration allows the operator to form a global overview of the situation through integrated maps within the user interface of the Operational Client and the Web Client.

The user interface with GIS mapping helps the operator to make faster decisions. Once an alarm activates, the location of the incident can be seen within milliseconds. This tool, updated in real-time, is especially useful when companies are spread across multiple locations. They can all be monitored from a central control room with multiple workstations.

Each workstation in the control room can be equipped with a GIS map. If one of the operators is busy, another operator can monitor the progress of the situation in real-time.

MONITOR MOBILE TEAMS

During an incident, one or more mobile teams can be assigned to an intervention. In the control room, any operator using our PSIM software tracks the actions of the mobile teams using their geolocation data. We can track the geolocation data using their mobile, laptop, and tablet. The operators can also monitor the presence of the mobile teams through our IP-Matrix video wall. With GIS integration a lot of the daily operator tasks can be automated which makes internal communication easier and the daily operator tasks more efficient.

WHY CHOOSE OUR GIS INTEGRATION?

REAL-TIME UPDATES

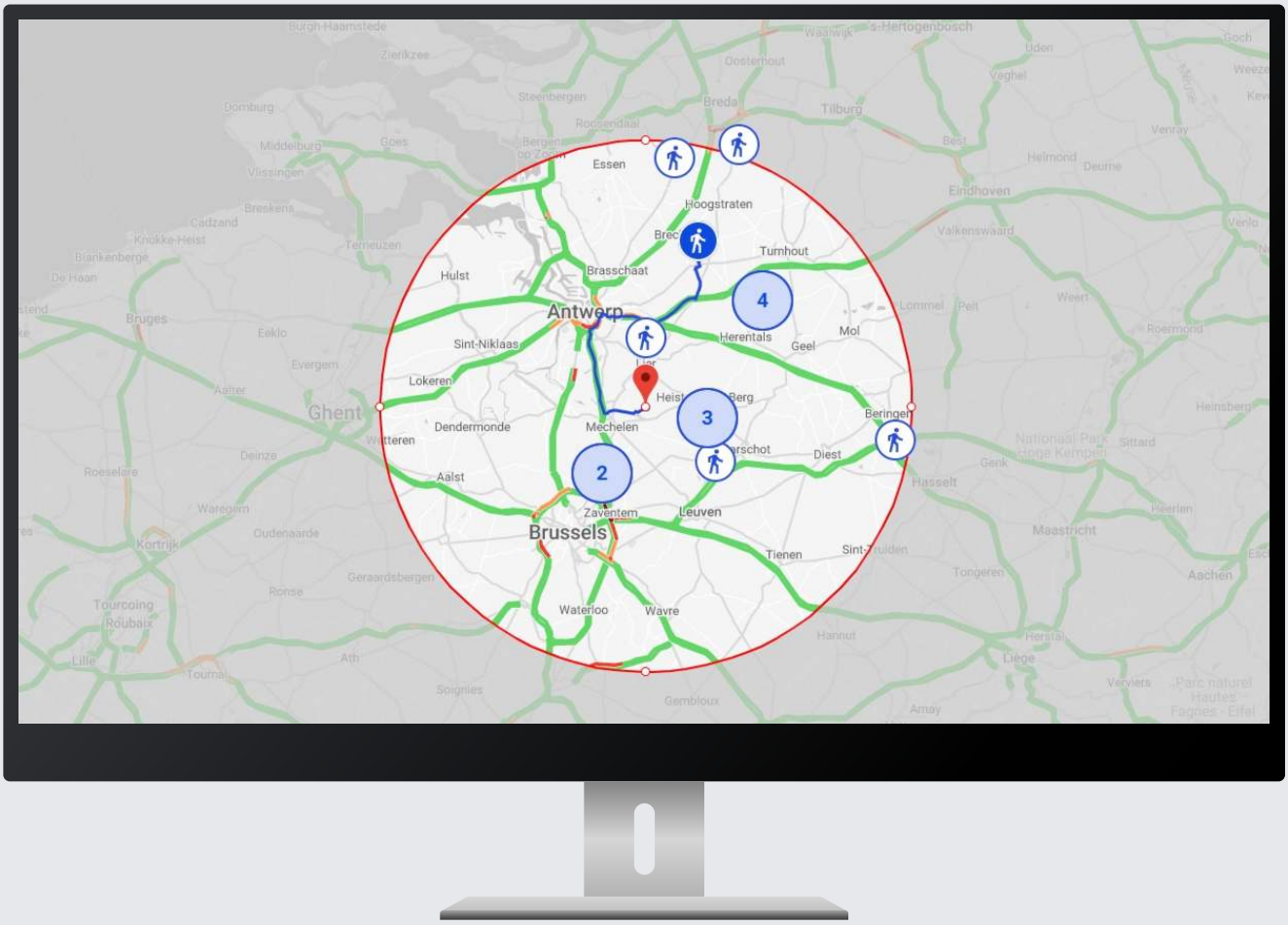
GIS integration allows your organization to obtain real-time information and location updates from all your mobile teams.

SAVE COSTS

Because route planning is optimally calculated through GIS integration, your transportation costs can be greatly reduced.

MORE EFFICIENCY

With GIS you'll know exactly where all your mobile teams are. This will reduce communication noise and boost internal efficiency.



GIS Integration with nearby mobile teams for your control room

WHAT ARE THE BENEFITS OF GIS INTEGRATION?

- Intuitive handling of alarms
- Fully modular and customizable
- Easy management of mobile teams
- Platform independent
- Reduce organization costs
- Real-time traffic information
- Better overview of the incident
- Real-time status updates
- Efficiency in emergencies
- Better decision making

Incident Manager

WHAT IS IT?

The Incident Manager allows an operator to efficiently handle an unplanned situation from your control room. The essence of the incident manager is focused on restoring the normal operation of a service or system, as well as restoring normal communication between an operator and other internal & external parties.

The Sky-Walker Incident Manager allows you to link alarms to certain procedures as needed. For example, when a fire alarm occurs, the system starts an automatic procedure immediately after. These procedures can be customized and depend on your organization's priorities. When unplanned incidents occur, an operator can start a manual intake call procedure. within this procedure he or she can enter data using a form and, if necessary, send this data to other operators or external parties. For example, it is possible to share certain data with the fire department or police, but also with the person in charge of the building, technical service, mobile teams, security guards, etc.

WHICH PROCEDURES ARE INCLUDED?

- → Manual intake call
- → Handling fire
- → Handling burglary
- → General malfunctions
- → Out of service

THERE ARE 3 KINDS OF ALARMS WITH SKY-WALKER

AUTOMATIC ALARM

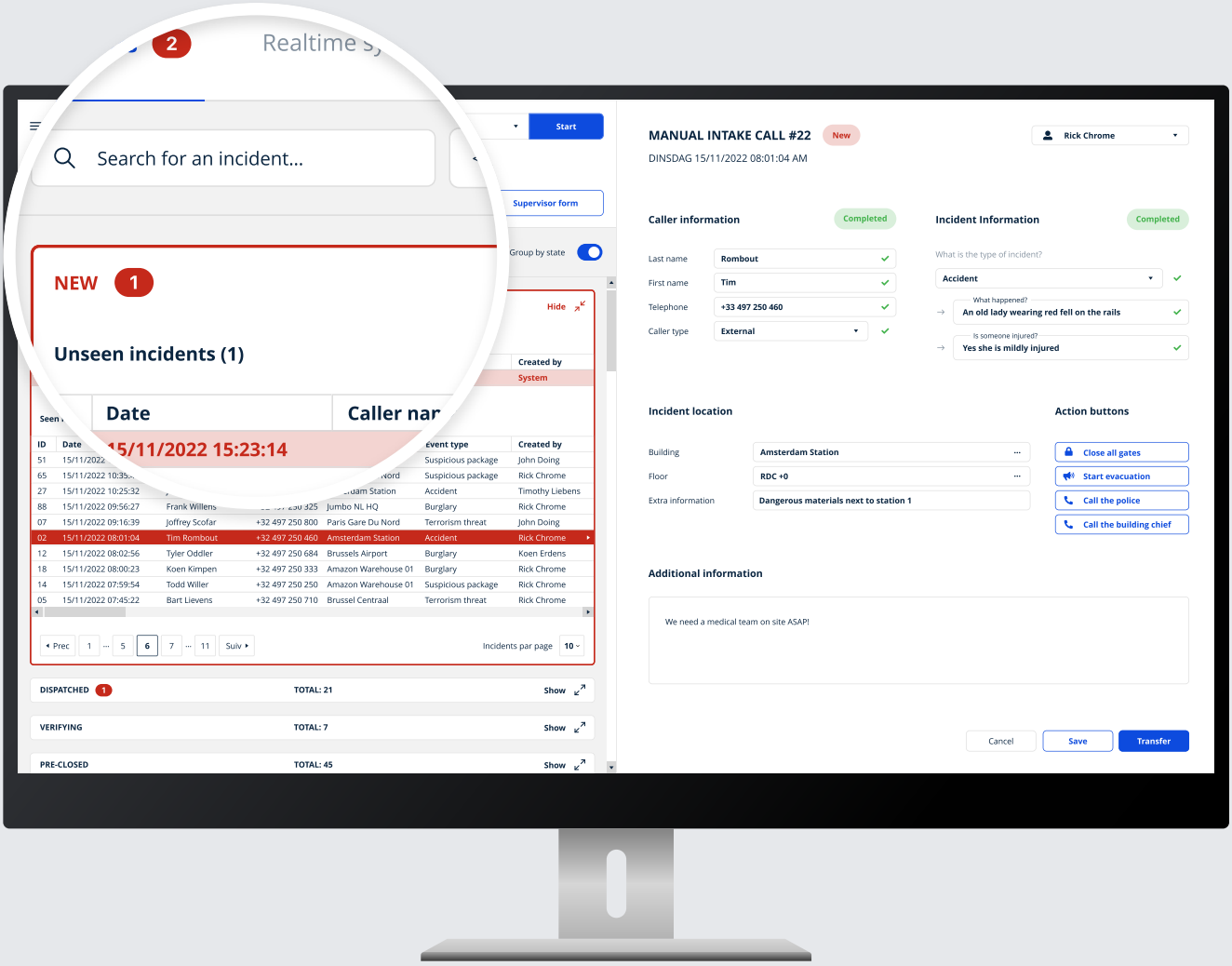
This is an alarm that was automatically activated by the system associated with it. For example, a fire detector that goes off.

FOLLOW-UP ALARM

This type of alarm is triggered because it is linked to another alarm. In practice, you can use our software to set up any hierarchy.

MANUAL ALARM

This alarm can only be triggered if confirmed by the operator. A simple click on a button is sufficient to trigger this alarm.



Incident Manager for your control room

WHAT ARE THE FEATURES OF THE INCIDENT MANAGER?

- Advanced features for managing procedures
- Great flexibility, adaptability & scalability
- Easy and fast configuration
- Dynamic states that suit your business
- Supervisor functionality
- Infinite customization possibilities
- Real-time notifications of new alarms
- Custom and sector-dependent procedures
- GIS integration within forms
- Desktop App and Web App flexibility

IP-Matrix

WHAT IS IT?

The Sky-Walker IP-Matrix module allows you to connect different CCTV systems, such as IP cameras, DVRs, and NVR systems, into one clear video matrix. In short, the IP-Matrix is the missing key for your video wall. All cameras can be linked to fire detectors, sensors, and intrusion detectors to have better visibility when an event occurs. Features such as PTZ (pan-tilt-zoom), live view, layouts, salvos, sequences, and playback recording are all implemented in this new module.

With the IP Matrix installed on your video wall, you get a global view of the systems within your building. The equipment connected to the systems can be accessed via the Sky-Walker PSIM software. In doing so, you are able to perform various actions on your systems.

Once connected to the systems, you can monitor the security of your building in real-time through the cameras connected to the video wall of your control room. Your cameras can be displayed in different layouts or salvos.

WHAT LAYOUTS ARE POSSIBLE?

- 1x1 layout
- 2x2 layout
- 3x3 layout
- Custom layout

WHY USE OUR IP-MATRIX CCTV SOLUTION?

BETTER DECISIONS

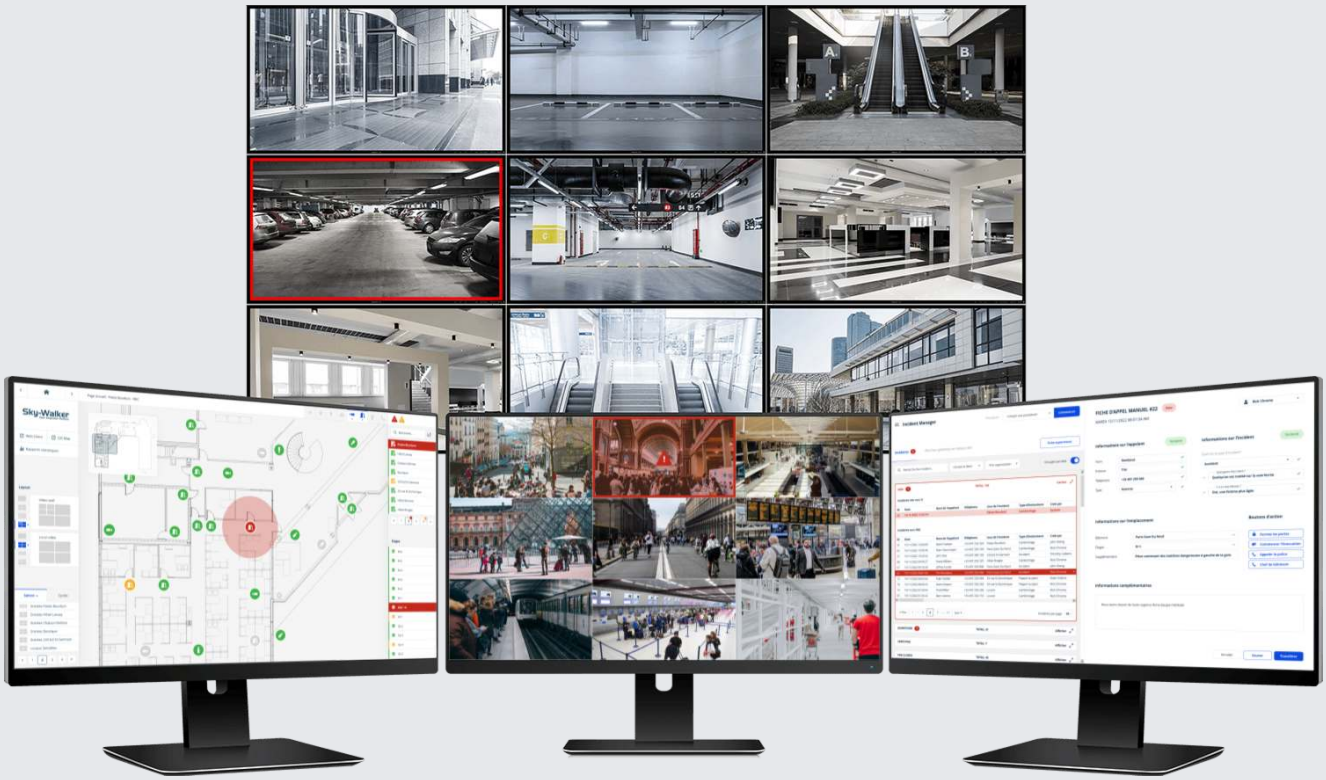
Using the IP matrix enables informed decision-making and makes the thought process in crisis situations more efficient.

EXTRA EYES

Video cameras give you an extra pair of eyes to watch what is happening in your building. With the IP Matrix, you'll get a better overview.

GAIN CONTROL

Get more control of your building and all the Building Management Systems (BMS) that are connected through Sky-Walker PSIM.



IP-Matrix CCTV solution for your control room

WHAT ARE THE BENEFITS OF THE IP-MATRIX?

- Better decision making
- Cost saving
- Only one client required
- More efficiency for operators
- Vendor Independence
- Extra set of eyes
- Better alarm handling
- Extended CCTV features
- Better overview of all your CCTV
- Can be integrated on any videowall

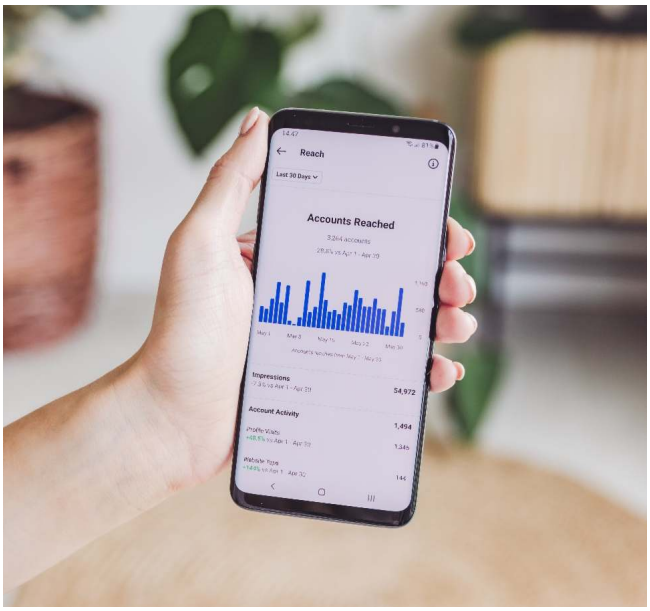
Reports & Dashboards

WHAT IS IT?

Within PSIM, a report is a summary of the system data integrated into the PSIM software. This summary is visible in the form of an interface. The data within your reports consists of data such as alarms, statuses, failures, etc. After downloading a report, you can take action on these systems.

For example, when you want to schedule maintenance for a particular system. The report also allows you to display global data, such as the number of visitors within your building.

With our reporting tool or dashboards, you can also get an abstract overview of all your incidents. Our reports can be a tool to measure the effectiveness of the actions you have taken to resolve an incident. When an incident occurs, your operators and intervention teams will perform missions to resolve the incident and various data will be analyzed to improve this process.



MANAGE YOUR REPORTS WITH SKY-WALKER

More and more companies are realizing that collecting and analyzing data about safety and comfort in their buildings is essential. The processes leading to the optimal safety and security of occupants can be improved by collecting "Big Data" from various systems. With our dashboards or reporting tool, this data is analyzed and displayed in a way that is of interest to your organization. The Sky-Walker report management software is a tool that gives you a global overview of all your data.

WHY CHOOSE FOR OUR REPORTS & DASHBOARDS?

ANALYZE BIG DATA

All system and incident data is stored in a database within our PSIM software.

EFFICIENT PROCESSES

Resolve your incident and system processes with improved efficiency.

CUSTOM REPORTS

Create custom reports based on the data you want to analyze.

Reports & dashboards for your control room

IS THERE A DASHBOARD FOR FIRE?

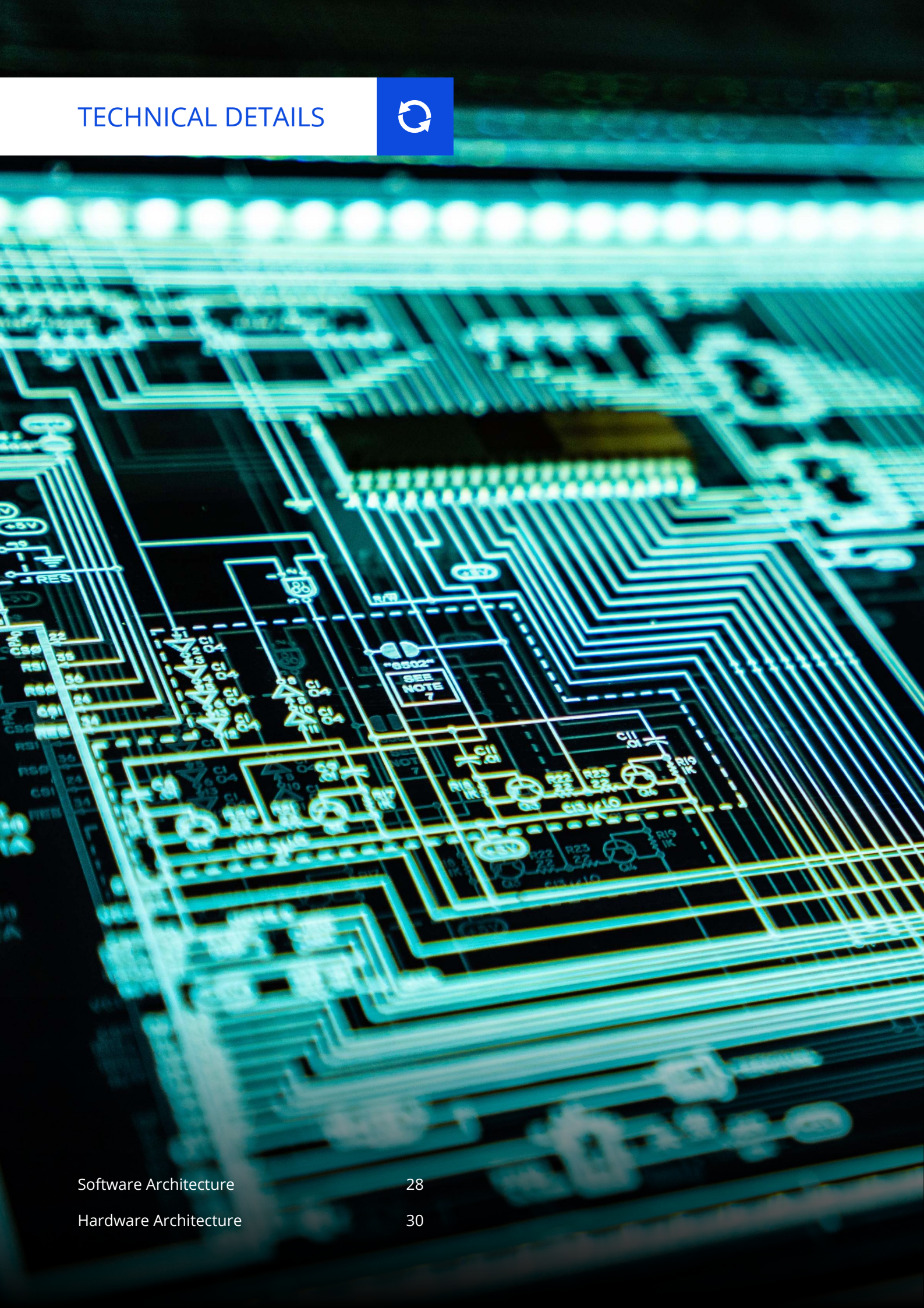
If a fire occurs within your building, you can use our reporting tool to collect data such as:

1) Arrival times of your intervention teams
2) The systems that have suffered damage
3) The routes followed by your teams
4) Arrival times of security guards or firefighters

In addition, your fire protection and fire detection systems have triggered a physical alarm at some point. With our reporting tool or dashboards, you can see where and when was triggered, detecting possible defects. In this case, the reporting tool is used for fire report management, and all elements of the incident are collected.

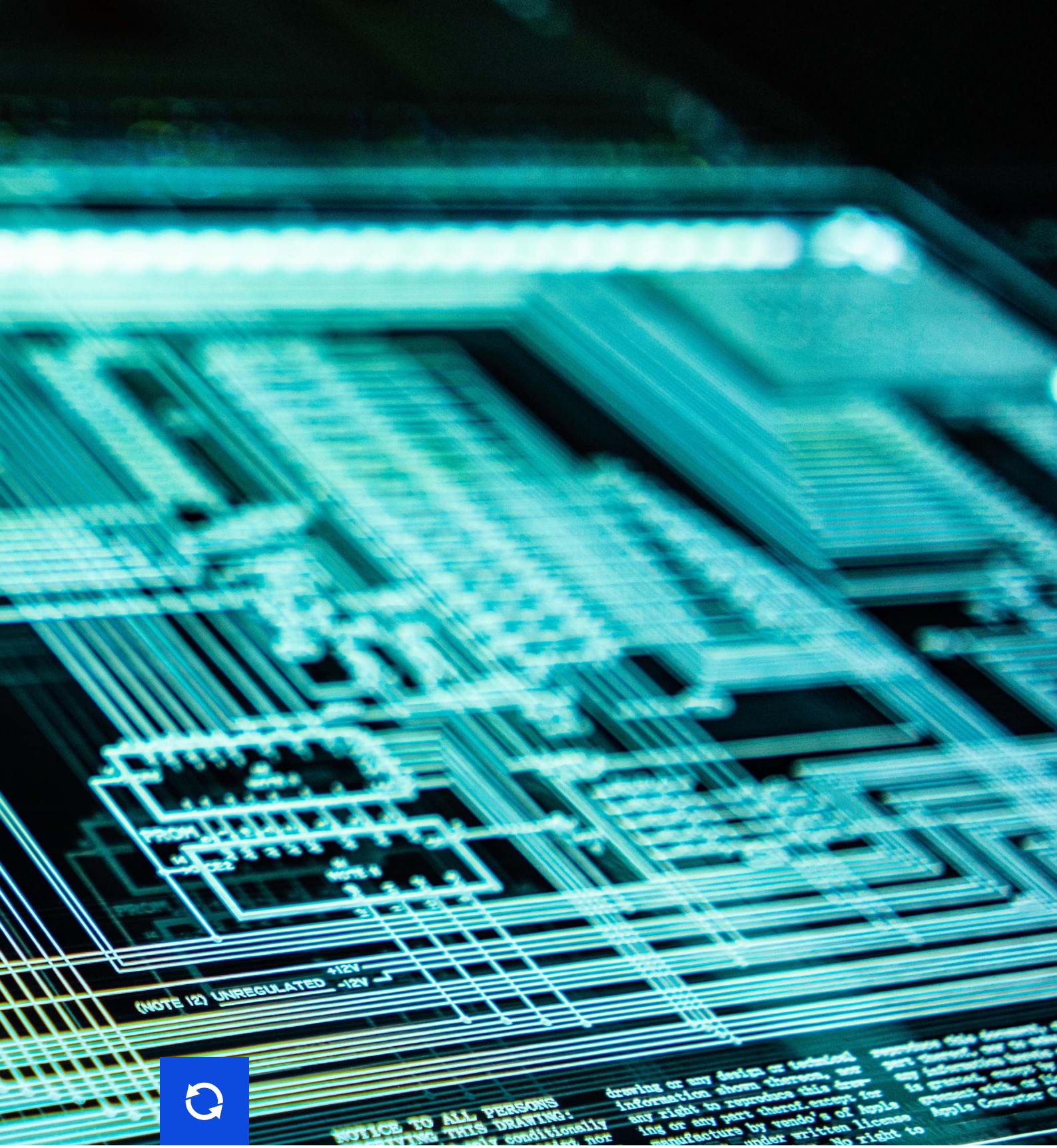
If the intervention teams have taken the time to intervene, it is probably because there is a fault active in the system or the condition of the system is critical.

TECHNICAL DETAILS



Software Architecture 28

Hardware Architecture 30



LEARN MORE ABOUT HOW SKY-WALKER WORKS

Within this section, we'll go a bit deeper into the technical details that make it possible for Sky-Walker to run its day-to-day operations. You'll notice that it's not only the software that makes this possible, but also the hardware. The success of our PSIM platform can only be possible when our software can efficiently communicate with other subsystems through driver modules.

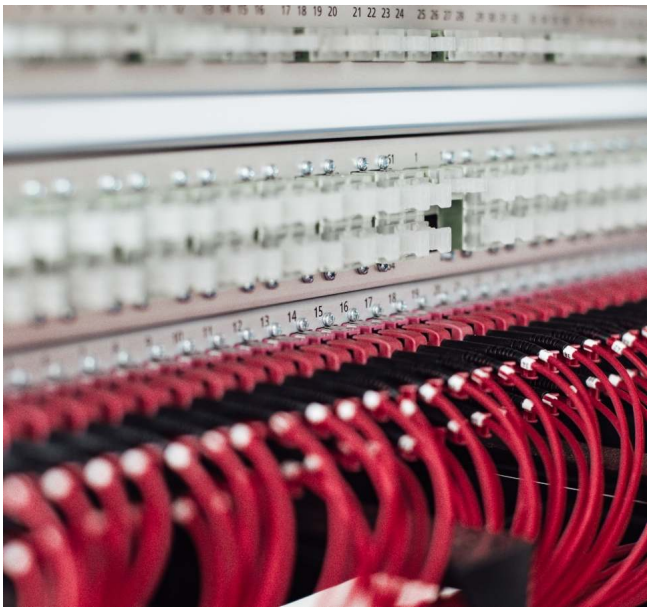
Software Architecture

HOW IS OUR SOFTWARE BUILT?

The Sky-Walker Integration Platform has a Service Oriented Architecture, which means that the software is built with the dependency of multiple services, designed to run 24/7 in the background.

Services work autonomously without user interaction and start automatically with the Windows Operation System, independent of whether or not a user is logged in. This gives more flexibility when using Sky-Walker within virtual environments.

The Thick Client is mainly developed in .NET Framework using C# as a programming language. The reason is that our customers dominantly use Windows Desktop Applications. However, the Web Client uses ASP.NET for the back-end and Angular Framework for the front-end. Within our development team, there are software architects who are responsible to create a scalable software foundation. Secondly, there are software developers who are mainly developing new features, solving existing bugs, and creating new driver scripts.

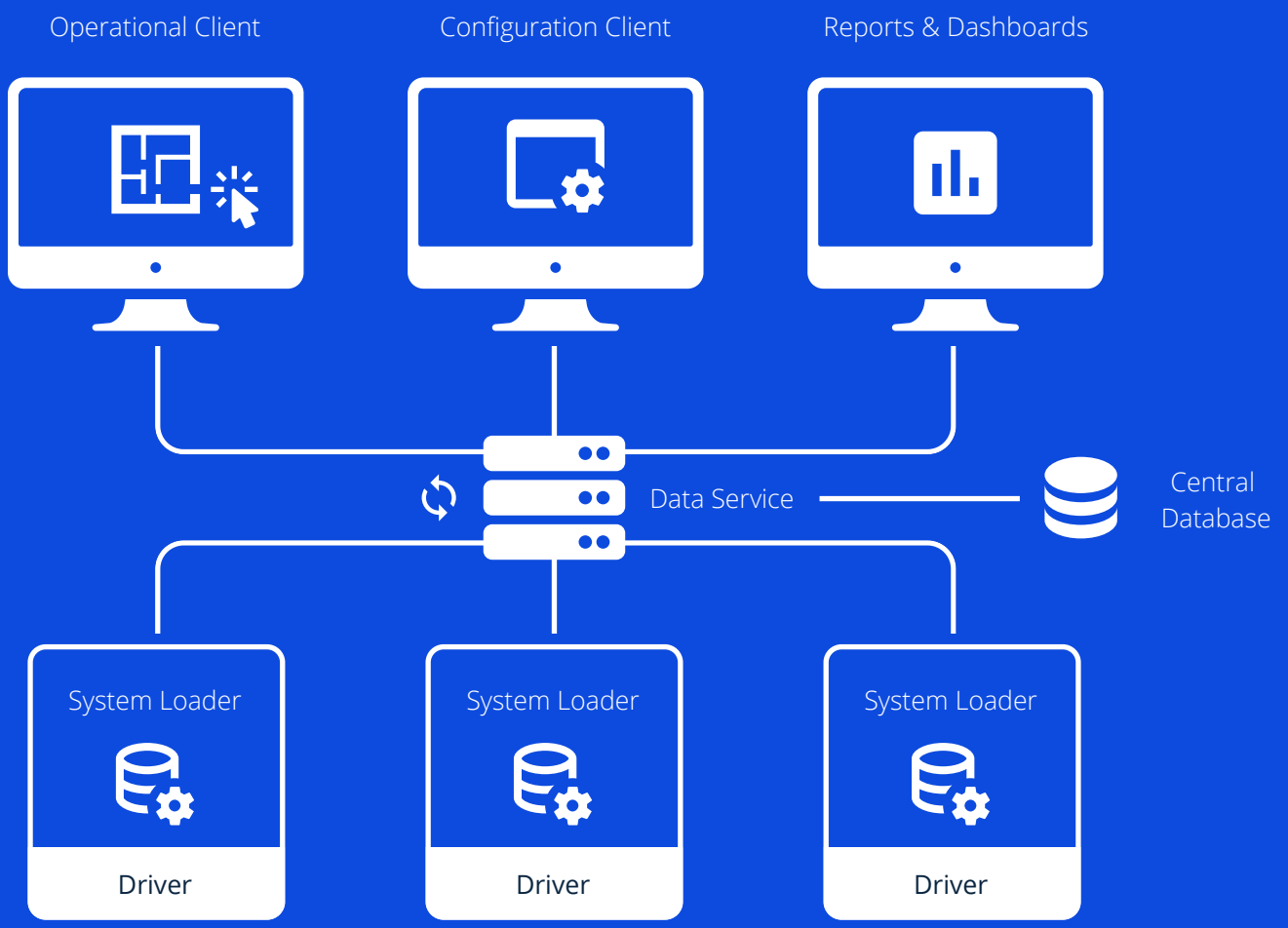


HOW DO SYSTEMS COMMUNICATE?

All communication with the subsystems is done via communication driver modules, each of them running with a system loader service. The system loaders operate as a layer between the server and driver modules. They are responsible for the communication between the integration platform and the externally connected subsystems. Every subsystem speaks a different language. A driver is essentially a piece of software that acts as a protocol translator between hardware and software.

WHERE IS ALL THE DATA STORED?

The data layer or back-end software takes care of the communication between external systems (fire panel, intrusion panel, CCTV, access control, HVAC, lighting systems, etc.) and graphical workstations. The Sky-Walker database uses a Microsoft SQL server and the Express Edition is supplied as a standard with our software. The central database is the core of our software. This database stores the operational data (users, system points, active alarms, etc.). All of the software components interact either directly or indirectly with the central database.



WHAT IS THE SKY-WALKER DATA SERVICE?

The Data Service controls and communicates with all components of the integration software, acting as a gateway through which all data is exchanged. The Data Service contains the business logic in which data is transmitted and how it will do that.

For example, our Data Service is responsible for the following:

1) Passing real-time data communication sent by a driver toward the client applications
2) Managing access to specific domains
3) Notify users when a specific component becomes unavailable or available
4) Controls which operator sees what based on the user access rights
5) What workstation is linked to which IP Address

Hardware Architecture

WHAT ABOUT THE NETWORK?

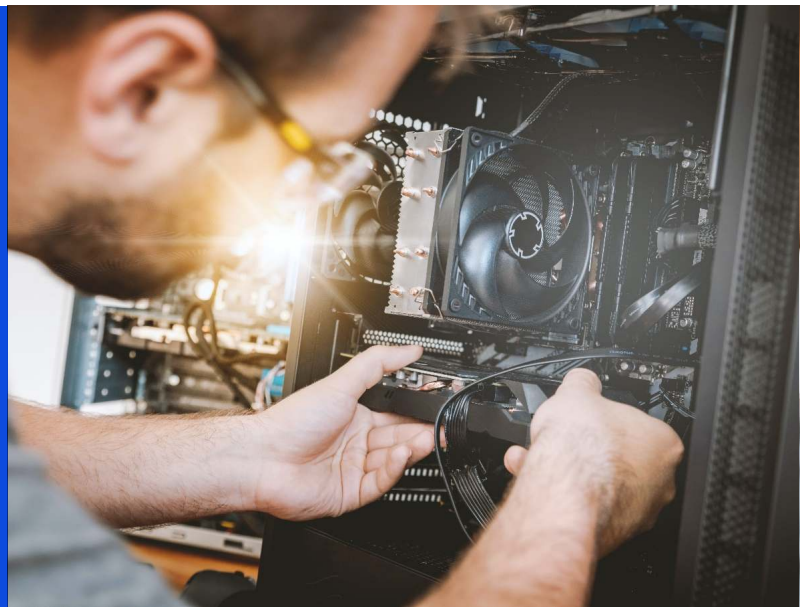
Different devices communicate with each other through the Ethernet using the TCP/IP protocol. All servers, workstations, and subsystems on the network need to be uniquely identified by a fixed IP address. Communication between all modules is enabled through specific IP ports.

To run the Sky-Walker application, Entelec uses the existing customer IP network. There are, of course, some minimum requirements that have to be met, depending on the size and nature of the project. Enough bandwidth has to be available in order to guarantee adequate functioning and sufficient performance during the transmission of data and video.

Also, the latency on the network is important to guarantee high performance for real-time data transmission. Entelec has gained experience with all kinds of different projects, therefore we are able to determine the needs and requirements of our customers.

WHAT ARE THE REQUIREMENTS?

Processor	Intel i5/i7
Memory	4 GB
Network	100 MBps
Operating System	MSW7 or higher
Graphics Card	512 MB Memory
Sound Card	Integrated Soundblaster
Hard Drive	50 GB



3 WAYS TO CONFIGURE SKY-WALKER

STAND-ALONE

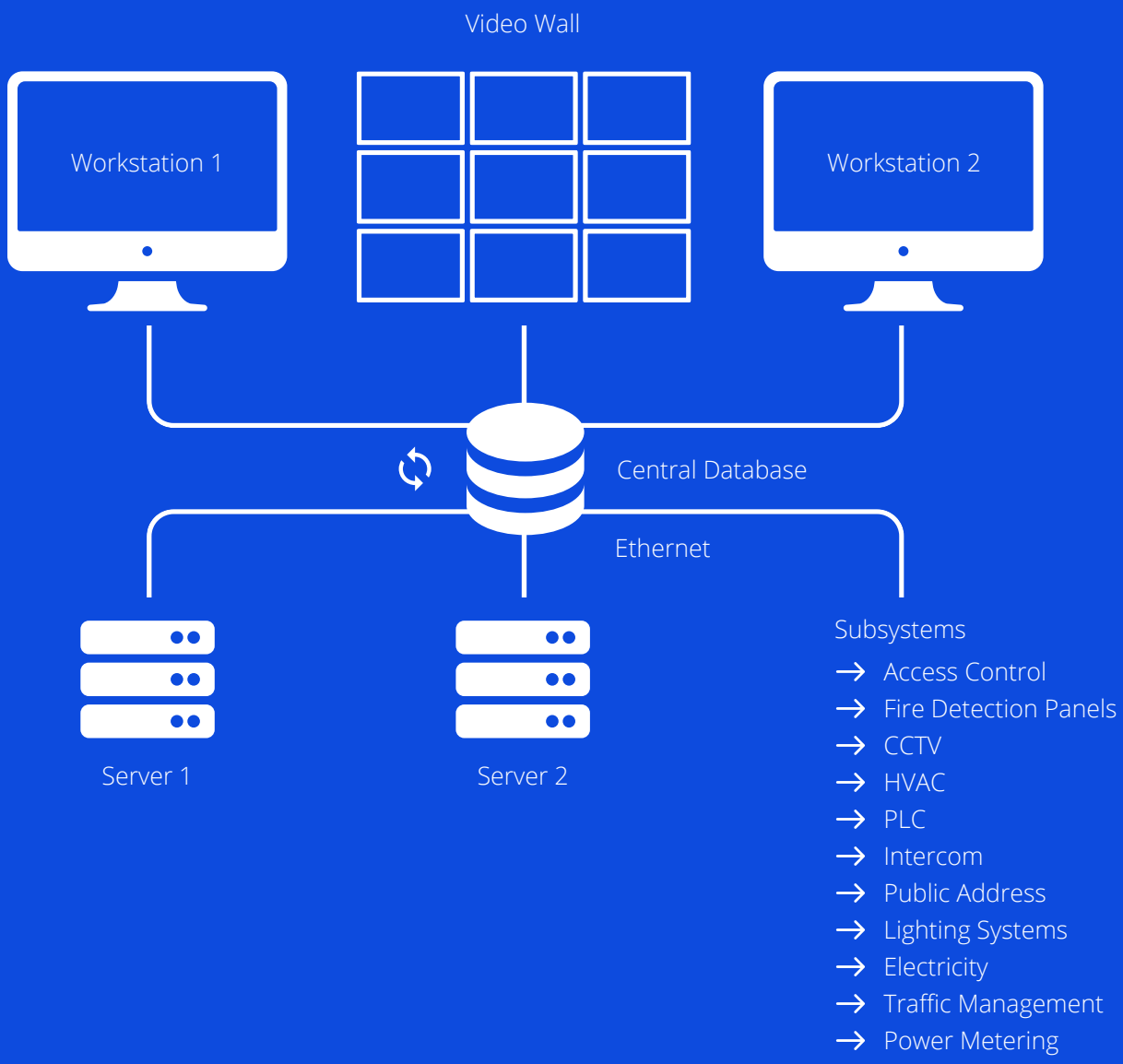
A stand-alone configuration is the most simple one. A database server and workstation are installed on 1 computer only.

CLIENT WITH 1 SERVER

Server and workstation run on separate PCs. This configuration is used when more than 1 client is required.

CLIENT WITH 2+ SERVERS

This configuration is used when many systems must be connected. The required processes run on multiple servers to support the load.

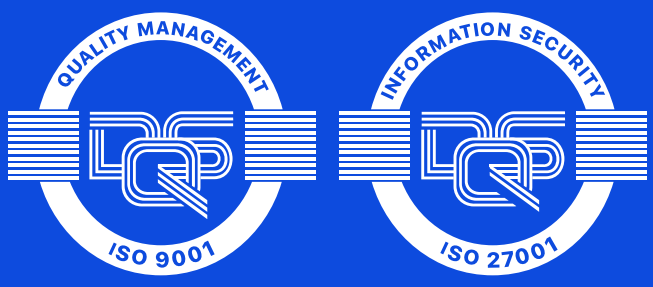


WHAT ARE THE SPECIFICATIONS OF THE SERVER?

The servers run the back-end software that is necessary for the communication between external systems (fire panel, intrusion panel, cameras, access control, HVAC, lighting systems, etc.) and graphical workstations. Depending on the project, the server requirements can be adjusted according to your needs. The following minimum server requirements are necessary:

Processor	Xeon Quad / Intel i7
Memory	6 GB
Hard Drive	80 GB
OS	MS Windows Server 2008 R2 or higher
Network	1 GBps

Building Software That Matters.



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