



Synergy|3

Evolved Command and Control





25
YEARS
EXPERIENCE

End-to-end surveillance
control systems for the
world's most demanding
security environments.

Intelligently Integrated Security Management

The latest evolution of Synectics' comprehensive command and control platform, Synergy 3 is the result of over 25 years of security industry experience and sector expertise.

Synergy 3 delivers an open software platform that mitigates risk, improves operational efficiency, and provides peace of mind for security managers.



SYNERGY 3 FEATURES

- Flexible, tiered software licensing to fit any size application
- Integrated video, data, and alarm command and control
- Touch-screen, map-based navigation for simplicity of operation
- Proactive and automated incident management and collaboration
- Database driven, user-definable, on-screen forms and customised reports
- Secure and customisable user access rights, layouts, and operational capabilities
- System fault and alarm management, automated workflows, and reporting
- Open standards compatible with ONVIF, PSIA, OPC, MODBUS, and SNMP compliant devices
- Customisable third party system integration
- Set-up wizards for rapid deployment
- Multiple site federation; full peer-to-peer or master/slave command and control
- Uncapped scalability to accommodate system growth
- Multi-tiered resilience and redundancy for maximum system uptime

View. Control. Connect. Extend.



Synergy|3

Synergy 3 is the foundation of Synectics' intelligently integrated turnkey solution which reflects our continued commitment to customisable security management systems that seamlessly integrate with third party products.

Created with the same exceptional levels of performance and functionality that Synergy users have come to rely upon, Synergy 3 introduces new and enhanced features that expand its proven capabilities. This solution is designed for professional security and process control operations that require maximum flexibility, scalability, and reliability.

Synergy 3 delivers a range of features suitable for entry level to enterprise class deployments that can be cost-effectively implemented across a single or multi-site operation. This flexible, tiered approach enables you to assign appropriate system access and functionality based on user or site-specific requirements. Software tiers can be upgraded with enhanced features as system and operational requirements grow.



As control room environments become more complex and diversified, Synergy 3 offers user-friendly, centralised command and control with unparalleled flexibility, expandability, and resiliency. Streamlined access to commonly used functions accelerates response to critical events and presents the operator with vital situational information to proactively manage threats quickly and appropriately.

Whether your project requires command and control of stand-alone or enterprise-wide systems; IP, hybrid

or legacy analogue video; or integration to multiple sub-systems, (e.g. access, fire, intruder, and process), Synectics offers field-proven hardware and software solutions to effectively and efficiently meet your operational needs— all from a single integrated, intuitive, and customisable platform.

Synergy 3 continuously monitors itself and generates reports and audit trails of operator activity, incidents, alarm management, system faults, and configuration changes. Security and operations managers have all the

information they need to professionally supervise system performance and track employee use (or abuse).

Intelligent hardware, software and database failover, backfilling video data from edge-based devices, and virtualised server resiliency makes Synergy 3 the system of choice for critical security, process control, and Alarm Receiving Centre environments.

Easy, Intuitive, and Customisable Control



Engineered with a common-sense approach that prioritises frequent user operations, Synergy 3 is easy to install, configure, and use, even for inexperienced operators. Yet, it also offers the most powerful security management tools available.

To get you up and running quickly, installation wizards simplify and expedite the installation process with auto-device discovery, centralised administration, and drag-and-drop configuration. Once the system is operational, even first-time users can intuitively access fundamental operational tools.

Operators may choose from a wide range of standard and customisable user interface layouts ranging from simple camera and video control, alarm handling, and incident management. Each default layout has been developed based on user-feedback and provides logical, streamlined access to commonly-used operator functions.

Synergy makes common operator functions simple and intuitive

**INTUITIVE
SIMPLE
COMMAND
& CONTROL**

Create Your Layout

For more specialised requirements, Synergy 3 Custom Layout Builder enables system managers to personalise screen layouts with just the information and tools they require. For instance, surveillance operator layouts will emphasise video and incident management, while security management layouts may prioritise alarms and alarm resolution forms. Technician layouts may monitor maintenance activity while manager layouts display key operator statistics and productivity. With Synergy 3, one size does not have to fit all.

In addition, layouts can be dynamically changed using pre-configured macros in response to system alarms and events. In the event of a high threat level incident, for example, the layout could graphically present vital alarm status on site maps and then guide operators through step-by-step responses.

Busy surveillance rooms monitoring critical assets require immediate access to cameras and video. With Synergy 3, camera selection is as simple as pointing to a map of your facility, typing a camera number or name, or moving your joystick in the desired direction. Cameras and other system devices may also be grouped by location or category and automatically presented through alarm-triggered macros. Synergy 3 empowers users to recognise threats sooner and respond more consistently.

Operators can easily move between live and recorded video with a single click and instantly retrieve video by date and time, alarm event, motion, or change of scene. Fast, flexible access to recorded footage minimises time spent searching for relevant video and expedites reviews, incident creation, and audits.



Operators can seamlessly move between live and recorded video with a single click.

Improve operator effectiveness with custom layouts featuring all the information and tools required for site-specific needs.

Professional and Flexible Video Display



Synergy 3 provides a multitude of client and display wall options that can be tailored to the needs of any surveillance operation.

Whether viewed on a mobile or desktop device, on a multi-monitor display wall, with live or recorded video, from an analogue or IP video source, Synergy 3 ensures that the video and alarm data is presented in a unified format that is most useful to particular operators or applications.

Each user workstation can present video in a variety of user-selected layouts. Anything from full screen to sixteen camera views can be presented simultaneously, and each can be controlled independently or in synchronisation. Video layouts can be controlled manually or automatically displayed in user-defined configurations based on specified alarm events.

Since Synergy 3 tracks the relative geographic position of one camera to another, it can display a primary camera view surrounded by all of the cameras in proximity to give operators a complete situational view. If a suspect being monitored moves to an adjacent area, a single click creates a refreshed camera proximity overview for optimum navigation and efficiency.

**Enhance critical communication
and coordination in the control room
environment with dynamic video displays.**

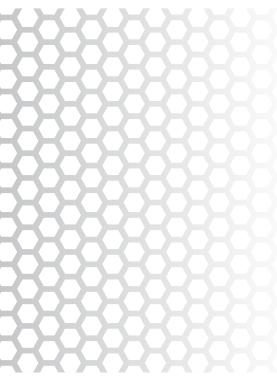


Synergy 3 command and control platform extends well beyond video monitoring. It also improves critical communication and coordination between operators, security personnel, and management. Display wall management tools are designed to show essential video, alarm, and situational awareness data for surveillance and security teams to act in concert.

Multiple video walls (controlled by a standard Synergy 3 client) display video in any number of layouts that can be automatically populated by user-defined alarms and workflows. Threat levels may be assigned based on a combination of alarms or manual intervention to ensure response procedures are escalated when a series of suspicious events occur at the same time. Relevant security data

such as persons of interests, alarm status, live weather or news feeds, etc. can be displayed alongside video to keep the entire control room informed of potentially related events or information. All monitor wall video and data activity can be recorded and readily retrieved at a later date for audit or training purposes.

Integrated Incident and Alarm Management



Synergy 3 empowers operators in high demand surveillance environments to quickly and easily create and manage incidents.

Incident Management

One click initiates a “live” incident that tracks every action the operator takes until the incident is closed. Video clips are automatically dubbed, notated, stored, and can later be accessed and amended with additional evidentiary data.

For ongoing investigations and prosecutable events, Synergy 3’s customisable incident management system will store maps, snapshots, observer notes, transactional data, and video in user-categorised case files for long-term storage, retrieval, reporting, and export.

Multiple operator collaboration on live incidents is available for scenarios where dynamic team contribution is required. For example, if several perpetrators flee in opposite directions, the surveillance operator can request assistance from one or multiple other Synergy 3 operators. Video and notes from all participating agents is combined into a single incident case file for efficient incident creation.

Alarm Management

A powerful security command and control solution, Synergy 3 logically connects alarm events to video and situational management processes.

An extensive alarm monitoring and alert system delivers colour-coded visual (and audio) messages for both internal (system) failures and external alarms (access control, intrusion, etc), presents associated maps and video, and even displays management-defined procedures that guide operator response to incidents. By quickly and automatically linking pertinent alarm events to live and recorded video, operators are able to react more intelligently and decisively when it matters most.

Process Management Workflows

User-definable workflows provide potent process management tools to guide operators through required procedures and responses to alarm events. Workflows automate and track operator reactions to defined alarm conditions with multiple “if/and/or” decision points and specify explicit procedures to follow for each. Workflows can incorporate custom forms, diary tasks, contacts, or automated e-mail or text messaging.

Workflows ensure accurate, consistent, and deliberate responses to alarm events that remove confusion during high pressure situations and ensure compliance with regulatory authorities.

Event and Alarm Counting

With built-in counting functionality, Synergy 3 can tally alarm events, set thresholds and time ranges, aggregate groups, and present real-time results in consolidated totals, graphs, or reports.

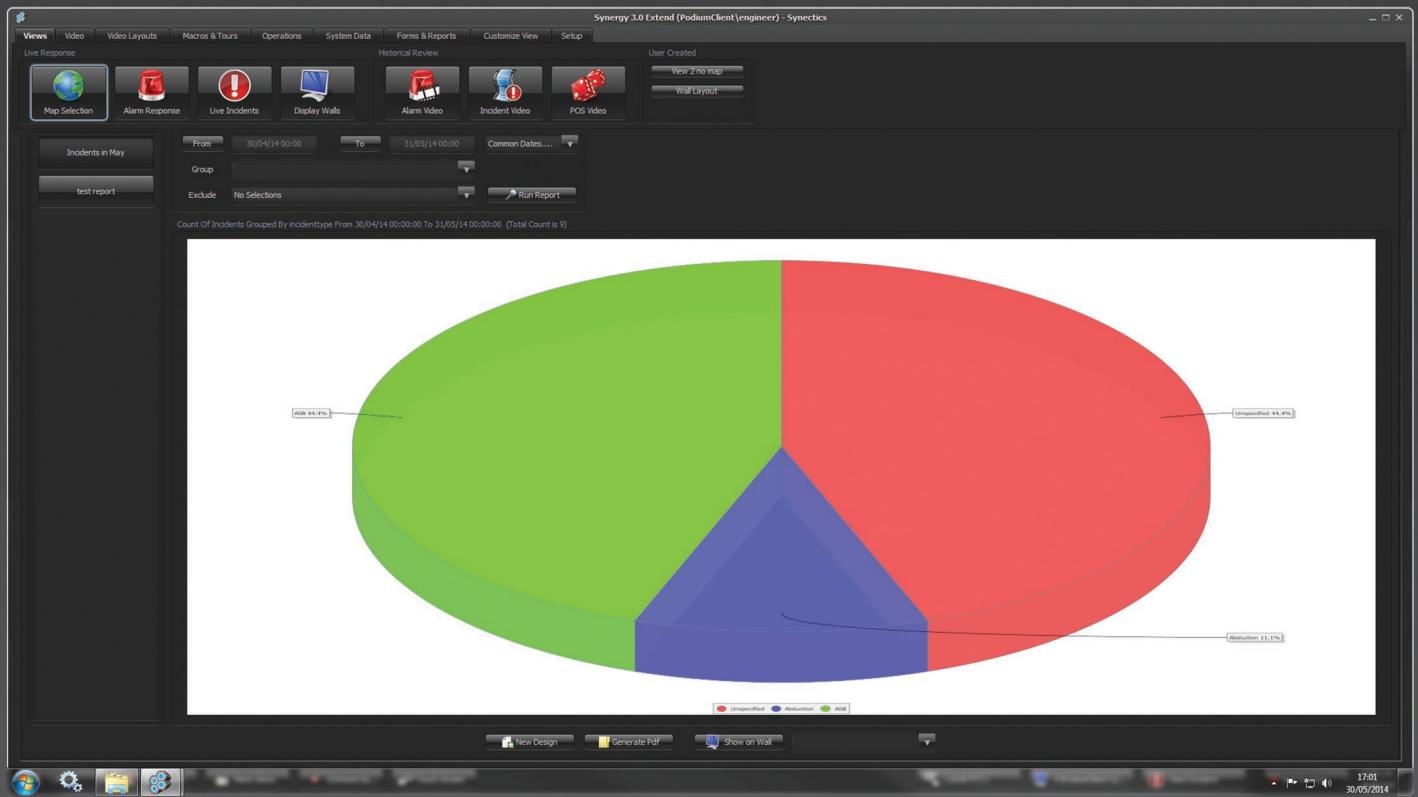
The system can monitor a variety of objects or events, such as the number of vehicles crossing defined tripwire boundaries, people entering or exiting doorways, cash drawer openings, or user-defined alarms.

The screenshot displays the Synergy 3 software interface. At the top, there's a map view showing a street layout with various locations marked. Below the map is a large window titled "Staff Entrance" containing an alarm description for "Staff Entrance (Staff Entrance)". The description includes the event ID "90 - Staff Entrance", the timestamp "27/05/14 17:09:57", and a camera reference "Cam 50 - Staff Entrance - Internal (HD)". There are buttons for "Ok" and "Video". To the right of this window is a "Workflow" panel showing a list of events and their details, such as "TECHIPM01 - Cam 132" and "Delivery Activity". A callout box highlights the "Workflow" panel with the text: "Logically connect alarm events to video and situational management processes."

Logically connect alarm events to video and situational management processes.

The screenshot shows the Synergy 3 software interface with two main windows. On the left is the "Workflow Editor: Alarm Procedures" window, which contains a flowchart for handling "Intruder detected" events. The flowchart starts with "Intruder detected", leading to "Security Breach", then branching into "False Alarm?" and "Incident Started". From "False Alarm?", it leads to "Reset System". From "Incident Started", it leads to "Alert Guard 4", "Move PTZs", and "Notify Security to Zone". From "Notify Security to Zone", it leads to "Send Broadcast Alarm to Zone". Finally, all paths converge to "End Permissions". Stage properties for "Intruder detected" are set to "Stage Name: Intruder detected", "Colour: Red", and "Macro: 10 Camera to preset". On the right is a "User Functions" window showing a live video feed from a camera labeled "External Detection Alarm". The video feed shows a person in a room. Below the video feed is a status bar with icons for "Alarms", "Tools", "Views", "Logs", and "Touch Screen". A callout box highlights the "Workflow" panel with the text: "Guide operators through the right response with operational workflows."

Guide operators through the right response with operational workflows.



Comprehensive Database Reporting

The screenshot shows the Synergy 3 Extend interface with a main menu bar at the top. Below the menu, there's a toolbar with various icons for views, video, macros, operations, system data, forms & reports, and setup. A central panel displays a "New Diary Task" dialog box. This dialog contains fields for "Task Details" and "Comments". Under "Task Details", there are fields for "Memo Text" (set to "engineer"), "Created By" (set to "engineer"), "For User" (set to "All Users"), "Auto-run?" (unchecked), "Schedule Rule" (set to "Single Entry"), "Select Macro" (empty), "Select Workflow" (empty), "Date Due" (set to "31/03/14 14:33"), "Completion Time" (set to "31/03/14 15:33"), "Select File" (empty), "Audio File" (empty), "Select Contact" (empty), "Select Fault" (set to "0"), "Select Incident" (set to "0"), and "Select Patrol" (empty). There is also a "Comments" text area. At the bottom of the dialog are "Save" and "Delete" buttons. To the right of the dialog, a calendar view shows dates from April 1 to April 30, with specific tasks scheduled for certain dates. A "Diary and Task Management" section title is centered below the calendar.

Advanced Management Reporting and Tools

Easy access to custom reports greatly enhances security and operational management. Synergy 3 reporting delivers essential information on system changes, incidents, alarms, camera activity, fault tracking, and operator performance. Reports and graphs can be custom built with user-defined fields suited to the needs of the department, situation, or operator for relevant, timely, and applicable analysis.

Historic user, incident, and alarm data is constantly captured and stored, and can be presented in a variety of on-screen and printed graphs and reports. Database-driven reporting allows users to search and filter system data by any criteria and save commonly-used reports for future use.

By combining variables such as incident type, camera, and location, security managers can obtain practical data to improve and optimise security procedures. For example, data can be presented graphically or in report format to identify areas of frequent “slip and falls” or criminal activity over a designated time period to highlight problem areas that need remedial attention.

Management Tool Suite

Beyond control and integration, Synergy 3 provides a full range of management tools for supervisors to track system performance, restrict or prioritise user access, audit operator activity, maintain on-going case files, monitor persons of interest, track repairs and maintenance history, and review alarm trends and anomalies.

System Management Highlights

- **Diary and task management** – assign one-time or recurring tasks to designated staff, incorporate workflows and forms, automatically monitor individuals’ completion progress through a unified calendar and diary appointments, and audit performance with comprehensive reporting.
- **User/group profiles** – create operator profiles that control and monitor access rights to every system feature and camera, integrated with Active Directory.
- **Fault management** – systematically alert designated technicians of defective cameras, recorders, etc., prioritise critical failures for immediate attention, track device problem history, serial numbers, vendor, etc., and receive notification when repairs are complete.

- **Contacts database** – store suppliers, employees, service personnel, VIPs, suspects, etc. with user-defined fields, photographs, and built-in messaging functionality.
- **Comprehensive database reporting** – search, sort and generate custom reports based on virtually any variable including operator, camera, time, incident type, system modifications, and alarms.
- **Detailed system logs** – stored in password-protected directories for technicians and supervisors to audit, troubleshoot and review every system activity.
- **User-defined macros** – automate system functions such as workflows, camera patrols, recording on motion or alarm, PTZ movement, resolution forms, and incident initiation.



Intelligent Integration



Synergy 3 is an open architecture platform designed to present and manage alarms and transactional data from independent third party systems—such as access control, fire, building management, process control, point of sale, panic—in a secure, unified, and visually-intuitive command and control environment.

Significant cost and efficiency gains are achieved by combining data from multiple systems into a single user interface. Managers and operators benefit from reduced training, better situational awareness from integrated systems' data, and more consistent adherence to regulated procedures regardless of sub-system vendors.

Synergy 3 streamlines alarm processing by automating routine functions. For example, an alarm event may trigger an audio alert, move a PTZ to a defined preset, display a designated camera stream on a supervisor's monitor, highlight the alarm point on a site map, lock or unlock doors, and inform key contacts via text or e-mail. Synergy also tracks all these activities and maintains a secure transaction record and case file to ensure data integrity for compliance verification or prosecution.

Synectics is committed to open integration standards and supports ONVIF, PSIA, OPC, MODBUS, and SNMP protocols. In addition to the dozens of existing integrations to leading security products and common standards, custom interface drivers can be cost-effectively developed upon request, as long as the third party system has an API available and transmits data via serial or Ethernet.

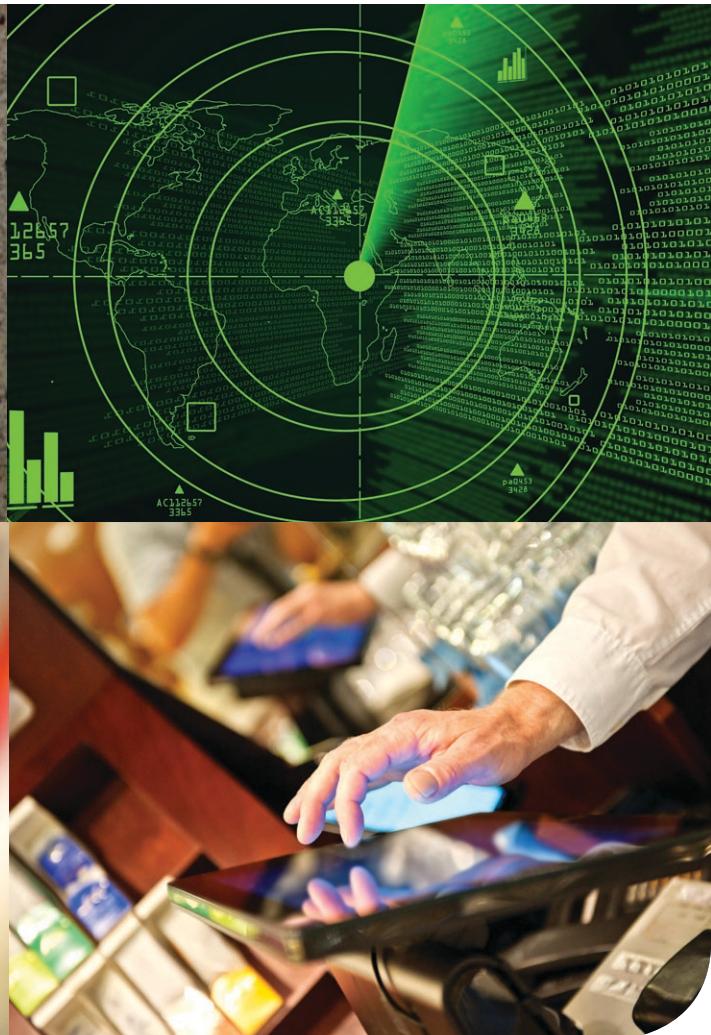
Manage data,
video and alarms in a
single user interface.



Smart Video Analytics

Synergy 3 Video Content Analysis (VCA), combined with Synectics iSynx Centralised VCA Server, provides "smart" monitoring to identify camera tampering, gross scene change, object classification, and tripwires in real time or after the fact. Optional add-on license packs are available for advanced threat recognition and detection, including perimeter breaches, object removal, objects left behind, loitering, and people/vehicle counting. Since iSynx servers reside on the video network, analytics can be assigned to monitor different cameras at different times as requirements change.

Synergy 3 may be configured to systematically compare surveillance activity against pre-defined rules, such as tripwire or motion, automatically detect and alarm on potential security breaches, and then bring the incident, location, and corresponding camera feeds to the attention of live operators. Security personnel monitoring large or distributed facilities can identify, verify, and respond quickly and confidently.



Integrate and Analyse your Data

Dataveillance

It is becoming increasingly difficult to detect threats from cameras alone as high risk indicators are often buried within petabytes of video and alarm data. As camera counts increase and additional third party systems are connected to the network, data proliferates, making it harder to identify real threats from benign activity.

To help surveillance personnel sift through all that data, Synectics has developed Dataveillance, a powerful data analysis engine that correlates video, alarm, and transactional information from multiple third party systems.

Security breaches, fraud, theft, or collusion often cannot be detected from a single camera view or alarm. Instead, it requires simultaneously monitoring a combination of interrelated data points from multiple cameras, door alarms, tripwires, or other third party systems. For example, a refund at a cash register is a normal occurrence, as is no one in line. But, anytime a refund is issued without a customer in line at the register, it becomes a suspicious event that warrants review.

As data is pushed to the surveillance network from various integrated systems, Dataveillance captures and organises it in a common database environment. Security managers can then create "if/and/or" rules to monitor and analyse the data in real time or after the fact. Dataveillance could, for example, look for a series of events happening in sequence, over a specified time period, and that fall outside of "normal" parameters. Suspicious incidents can trigger an alarm in Synergy's graphical user interface (GUI), which instantly presents time-synchronised video from associated cameras for visual verification. The ability to harness and simultaneously analyse multiple security databases with customer-specific algorithms and to automatically combine the data with related video helps operators expose, and proactively react to, complex deception, escalating threats, and covert criminal activity with far more accuracy and efficiency.

Visually Display Your Operation

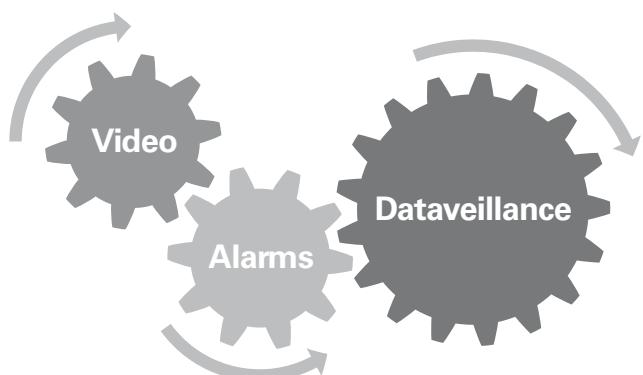
With Synergy 3's intuitive touch screen mapping interface, operators can quickly access a camera or follow a subject by touching camera icons on a street-level map or building floor plan, without having to memorise a multitude of device numbers or names.

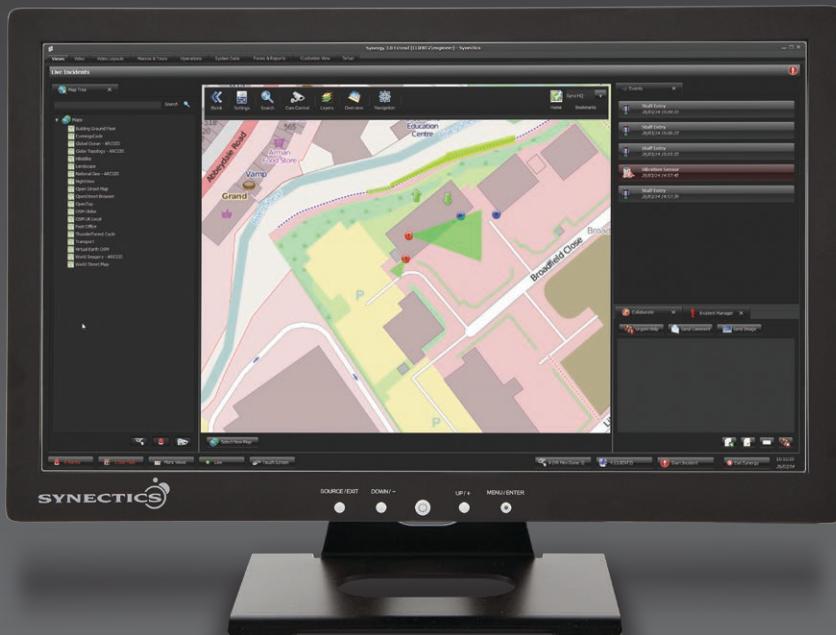
Other security components, such as PTZ presets, perimeter fences, access points, and alarm sensors can also be depicted on Synergy maps with "smart-status" icons. For example, an access control point can be displayed in green when the door is open and in red when closed. Synergy's logical, graphical interface reduces training time and makes it easy for first-time operators to use.

All icons are equipped with "tool tips" so operators know what each symbol represents for fast and accurate identification. Camera icons "tool-tips" may also include a snapshot of the camera's default field of view to save navigation time.

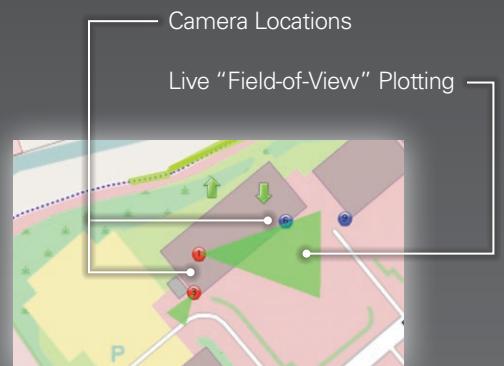
Upon alarm or event trigger, corresponding devices are automatically highlighted on the interactive map interface. Operators can instantly identify the incident area and respond appropriately based on location, circumstances, and available devices. For example, in the event of a fire alarm, an operator could remotely open all access controlled doors in the vicinity directly from the Synergy interface.

Synergy 3's flexible and scalable mapping engine provides logical navigation through a hierarchical "map tree" and supports hyperlinks to quickly switch between layers, such as hotel floors, campus buildings, and parking garage levels.





The Synergy 3 GIS mapping engine displays location-based data including camera locations and live “field-of-view” plotting.



Geospatial Information System (GIS) Mapping Engine

Synergy 3’s enhanced mapping engine, with GIS technology, can display geographically referenced information in an interactive, multi-layered, and visually intuitive format. GIS mapping allows operators to search for and locate a wide variety of data points quickly and easily including:

- Camera locations and live “field-of-view” plotting
- Street name
- Postal/ZIP codes
- GPS/longitude/latitude
- Operator derived bookmarked locations

The GIS mapping engine can display any location-based data such as historical crime statistics, anti-social behavior

hot spots, and slip and fall areas. Quick access to visually presented historic security data and cameras on interactive maps exponentially improves situational awareness and empowers surveillance operators to react and respond far more effectively to time-sensitive threats.

GIS automatically captures location meta data (latitude and longitude coordinates) so incident locations may accurately be identified and operators can record notes about specific locations for shared intelligence.

GIS is compatible with a wide variety of mapping platforms, including OS Mastermap, Open StreetMap, and Bing online mapping engine, as well as various other locally hosted maps, such as CAD, site, and floor plans.

Resilient and Secure System Protection

Synergy 3 is designed with multiple layers of hardware, software, and network resiliency that ensure the highest level of failover protection available for the world's most demanding security environments.

With real-time health monitoring, Synergy 3 provides operators and technicians with proactive feedback about system issues or any networked device failure. Fully compatible with SNMP, Synergy 3 can receive and display status data from connected SNMP devices or, alternatively, push alarm data to dedicated SNMP servers.

To protect against data loss or corruption, critical Synergy 3 databases can be replicated in real-time across multiple physical and/or virtualised failover servers, so vital system data is protected and the system remains fully operational should the primary server fail. Secondary hot swap servers continuously monitor the network and, should the primary sever fail to acknowledge, system control will automatically failover to a secondary server and mirrored database without interruption or operator intervention.

Robust enterprise class resiliency and video failover protection is available for Synectics' Recording Management System as well. Should a video storage server fail, Synergy 3 can automatically alert operators and redirect camera sources to record on one or multiple backup servers on the network without recording interruption or video data loss.

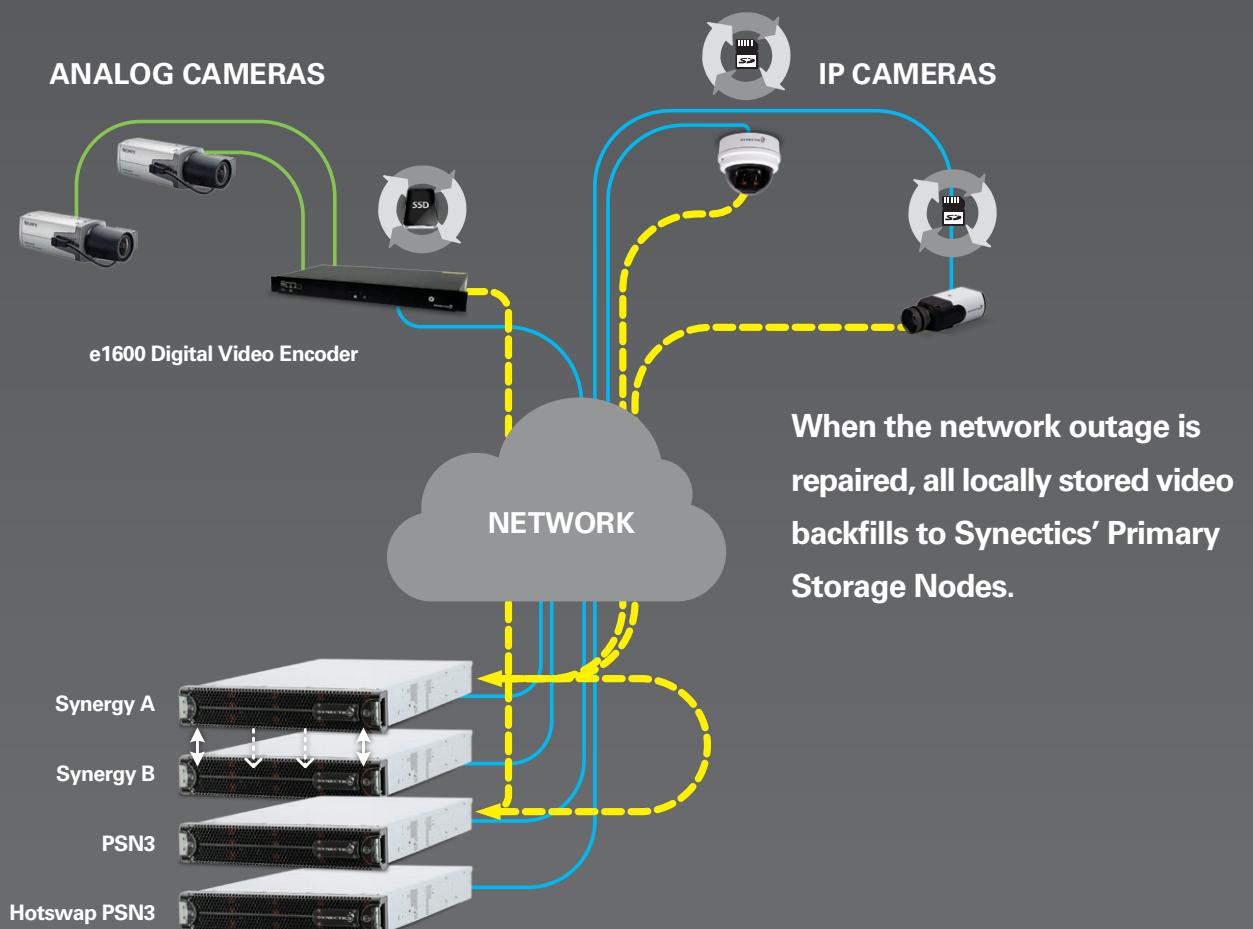
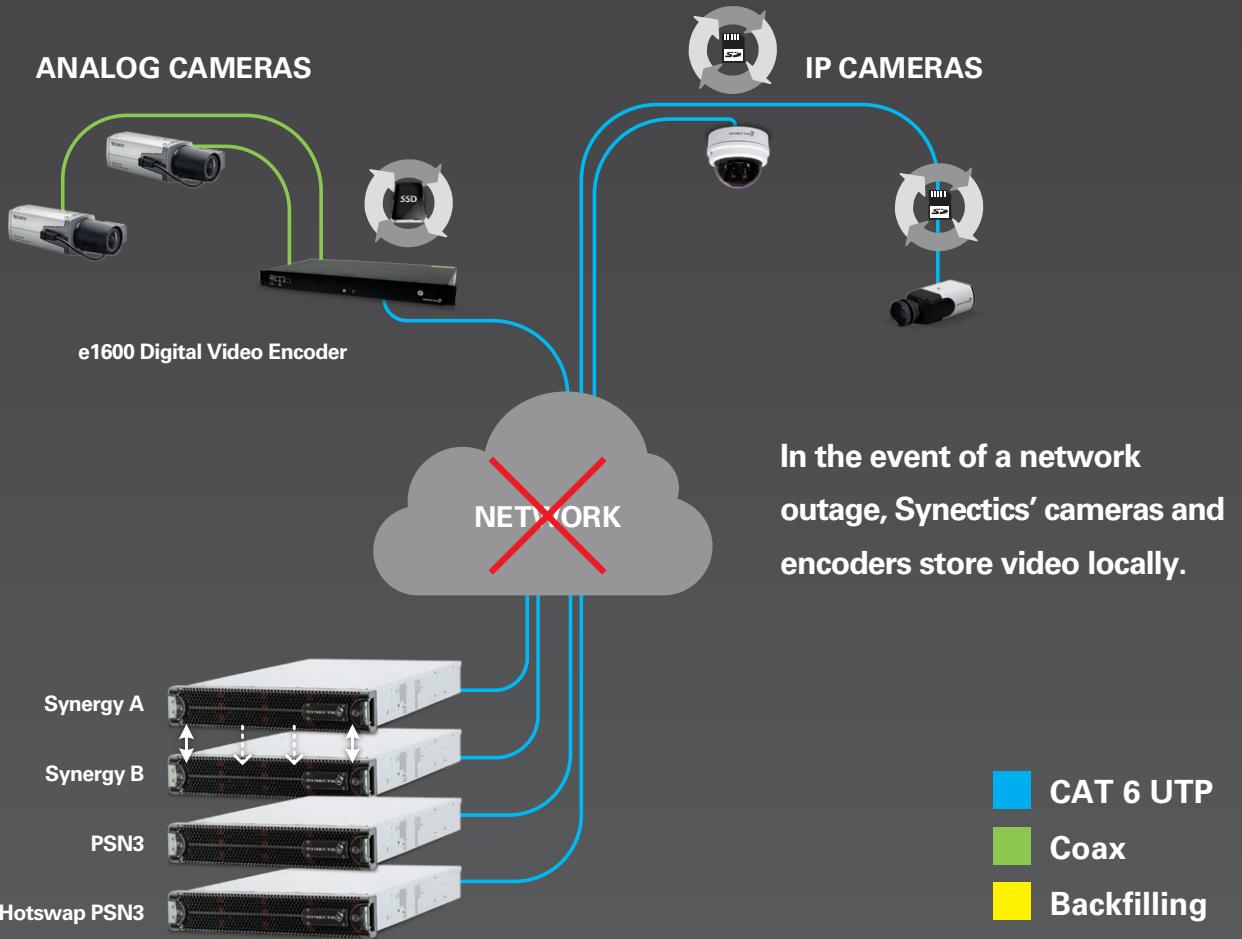
Synergy 3's intelligent failover functionality extends well beyond hardware protection. Cameras can be prioritised in Synergy so that camera streams covering high security areas failover before cameras in lower security areas and the video that matters most is protected first.

Synergy 3 also keeps track of all hot-swap server activity and video storage locations. Operators simply request video from a given time and the system seamlessly and automatically plays back the video, even when spanned across primary and failover servers, without user logs or intervention. This smart, resilient design maximises system uptime, maintains operator access to critical functionality, and protects video data integrity by eliminating any single point of failure.

Protection Against Network Failure

Finally, Synergy 3 offers unparalleled protection against IP video loss due to network failure. Synectics' IP cameras and encoders, equipped with SD memory cards or internal hard drive storage, can be configured to record locally for several hours in case of network interruption. When the network is restored, Synergy 3 will identify any missing video from the primary storage servers and look for the missing segments on edge-based IP cameras and encoders that have been recording while the network was down. Synergy 3's backfill technology will then automatically copy the missing video from the edge device across the network onto the primary storage server, restoring it with full data integrity. During the backfill process, cameras and encoders continue to stream and record without interruption.

Synergy 3 delivers uninterrupted system performance and data integrity.





Synectics designs integrated end-to-end surveillance control systems for the world's most demanding security environments. We excel at complex projects that require innovative, tailored solutions with high reliability and flexibility, specifically for casinos, oil and gas, marine, public space, banking, transport and critical infrastructure applications.

With over 25 years of high security systems experience, field proven products, and expert support personnel in the UK, US, Europe, UAE and Asia Pacific, Synectics offers its clients turnkey networked solutions for comprehensive protection and peace of mind.

Synectics' Systems division is part of Synectics plc, a global leader in advanced surveillance, security and integration technologies and services.

Americas Asia Europe Middle East United Kingdom
synecticsglobal.com

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