Network Cameras

Biometric Access Control Devices

Card Access Control Units

TCP/IP

CCTV Switchers

Security Hub

Audio Intercoms

TCP/IP

Alarm Receivers

Building Management Controllers

Workstation

Workstation

Security Host Computer

WHAT IS SECURITY HUB?

Security Hub is an embedded computer running SAI's powerful real time security control and communications software. *Security Hub* is the most advanced technology integration device ever created. It provides:

- integration of Digital Video, Access Control, Alarm Monitoring, Biometrics, CCTV, Audio Intercom, and Building Management technologies from multiple manufacturers into a single cost effective system.

- user-defined automation such that an event on one device may be used to control the functions of any other device, including the recording of pre and post event video, minimizing operation costs and maximizing the effectiveness of the system.

- a range of communications options that allow using dial up phone lines, leased lines, dedicated lines, or an Ethernet LAN or WAN for communications to the Security Host Computer, allowing the use of the most cost effective and reliable medium.

- a simple and cost effective solution for a small system with a few readers and cameras, as well as a cost effective means of expanding the capacity of a larger system.

- a compact footprint with almost limitless capacity and functionality to provide solutions for space limited environments to minimize the installation and enclosure costs.

Security Hub combines the functionality of a Digital Video Recorder, an Access Control Unit, and a Network Router into a single cost effective product.

Security Hub's software-based functionality and standard commercial-off-the-shelf (COTS) hardware insure its longevity by eliminating the dependency on proprietary microprocessor based products.

Security Hub gives its customers the flexibility to integrate the best field hardware solutions or to bridge from old technology field hardware and custom serial (RS232, RS485, and Coax) networks, to modern high performance platforms and reliable TCP/IP communications. It can save existing investments in and enhance the capabilities of legacy hardware and allow the customer to add new more capable hardware in the future.

Security Hub Models 1 and *2* support Access Control and Alarm Monitoring for an almost unlimited number of cardholders and events, 32 directly connected card or biometric readers, other manufacturers' access control panels, CCTV Switchers and Audio Intercoms.

Security Hub Model 2 adds storage capacity and multiple LAN Ports to provide support for 8 Network Cameras and all of the functions of an integrated Digital Video Recorder. It is by far the most advanced security product available

Model 1 Platform Specs:

- Embedded Linux Operating System
- High speed 32 bit x86 microprocessor
- 4 RS232/RS485 serial ports
- 2 USB ports
- 1 10/100 Ethernet LAN port
- PCMCIA Slot for Modem or LAN
- CRT, Keyboard and Mouse Ports
- 64 Meg of RAM
- 128 Meg non-volatile Flash Memory
- Secure read only operating system cannot be altered by applications or viruses
- Power protection maintains data integrity in case of sudden power loss. Unit is automatically rebooted upon restoration of power.
- 10-30 Volt DC Power Supply
- Optional 120-240 Volt, 47-63Hz Auto Sensing Power Supply
- Max Power 24 VDC @ 1 Amp
- Op Temp 0-55   C (32-131   F)
- Dimensions 6.5"W x 4.2"D x 1.4"H
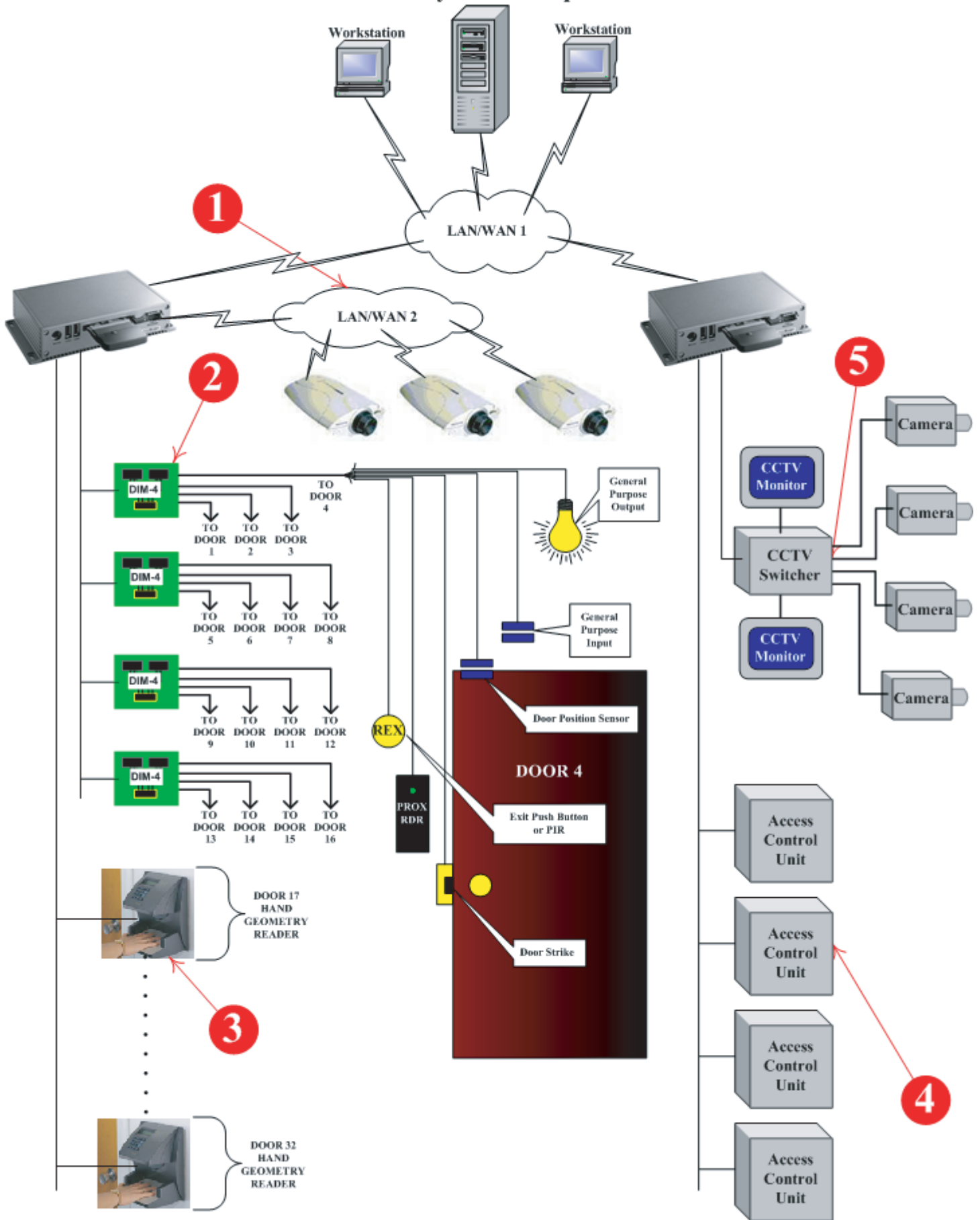- Weight 1.8 lbs.

Security Hub Model 1

Model 2 Platform Specs:

- Same as above except:
- 2 10/100 Ethernet LAN Ports
- 128 Meg of RAM
- 128 Meg non-volatile Flash Memory
- 80 Gigabyte Disk Drive
- Max Power 24 VDC @ 1.5 Amp
- Op Temp 0-45   C (32-113   F)
- Dimensions 6.5"W x 4.2"D x 3.5"H
- Weight 2.9 lbs.

Security Hub Model 2 Front and Rear

Security Host Computer

Workstation

Workstation

1

LAN/WAN 1

LAN/WAN 2

2

5

DIM-4

TO DOOR 4

General Purpose Output

Camera

CCTV Monitor

TO DOOR 1

TO DOOR 2

TO DOOR 3

Camera

CCTV Switcher

DIM-4

Camera

TO DOOR 5

TO DOOR 6

TO DOOR 7

TO DOOR 8

General Purpose Input

DIM-4

CCTV Monitor

Camera

TO DOOR 9

TO DOOR 10

TO DOOR 11

TO DOOR 12

Door Position Sensor

REX

DOOR 4

DIM-4

TO DOOR 13

TO DOOR 14

TO DOOR 15

TO DOOR 16

PROX RDR

Exit Push Button or PIR

Access Control Unit

DOOR 17 HAND GEOMETRY READER

Door Strike

Access Control Unit

3

4

Access Control Unit

DOOR 32 HAND GEOMETRY READER

Access Control Unit

Sample Configuration using *Security Hubs*

Major Features of Security Hub

- **Digital Video** - *Security Hub (Model 2 Only)* acts as an Integrated Digital Video Recorder supporting up to 8 Network Cameras. It can support multiple Ethernet ports so that video recording does not affect the bandwidth of the corporate network. Only when a user requests live or stored video does the video go over the corporate network.

- **Access Control** - *Security Hub* integrates card readers via Door Interface Modules (DIM's). It can support up to 32 card readers and the associated door position sensors, request-to-exit sensors, door strike outputs, auxiliary inputs, and auxiliary relay outputs.

- **Biometric Access Control** - *Security Hub* integrates Recognition Systems Hand Geometry Readers, which can support either keypads or card readers for entry of users' IDs. Any Hand Geometry Reader may be used for enrollment. *Security Hub* automatically handles the storage and distribution of Hand Geometry Templates.   Other forms of Biometric Access Control, such as Face Recognition and Finger Prints, will be available in the future.

- **Integration of Panels Manufactured By Others** - *Security Hub* can manage access control panels manufactured by others and integrate them over a TCP/IP Network. Support is available for Apollo, Checkpoint, Hirsch, Mercury, NexWatch, and others. *Security Hub* downloads these panels with the necessary cardholder and access privilege information they need to function independently. It also retrieves activity transactions from the panels and ships the information to the Security Host Computer. *Security Hub's* advanced decision making capabilities and almost limitless capacity allow it to assist and overcome the limited capabilities of conventional panels, as well as providing global decisions for multiple panels.

- **CCTV Switcher & DVR Integration** - *Security Hub* can manage CCTV Switchers manufactured by Pelco, Phillips (Burle), Sensormatic (American Dynamics), Vicon, and Sony's Digital Video Recorder. The user can define which system events will cause camera-to-monitor switching and recorder initiation. *Security Hub* will evaluate all event activity, regardless of the source, and send camera-to-monitor and recorder commands to the switcher or DVR based on the user's definition.

- **Audio Intercom Integration** - *Security Hub* can manage Audio Intercom Controllers manufactured by TOA. The user can define which system events will cause intercom switching. Security Hub will evaluate all event activity, regardless of the source, and send intercom switching commands to the controller based on the user's definition.

- **Security Automation** - allows the user to define a list of commands, such as activate an output or record pre and post event video, that will be executed on receipt of a user-defined trigger, such as access denied, door forced open, or motion detection.

- **Alarm Monitoring** - *Security Hub* may be user-configured to identify and prioritize alarms. These alarms are immediately transmitted to the Security Host Computer.

- **Time & Attendance** - Access Control Readers (Card or Biometric) can also be used as Clock In or Out Readers for capturing employee Time & Attendance data. As a person uses his or her card to gain access, the system automatically stores records of this clock in or out activity. This data can later be transmitted to a Payroll System.

- **Built-in TCP/IP** - eliminates the need for external Terminal Servers and provides fast, reliable, and secure communications. In addition, TCP/IP is supported over dial-up phones lines, leased phone lines, dedicated lines, or an Ethernet LAN or WAN.

The numbered circles above refer to the diagram on the previous page.

1

2

3

4

5

In Summary:

The Security Hub eliminates its users' dependency on proprietary microprocessors used for real time control and replaces them with modern network appliances. Its ability to integrate multiple technologies and manufacturers over a TCP/IP network makes it economical in small and large systems alike. Its software-based functionality running on a standard Linux platform extends its longevity, maximizing its users' return-on-investment.
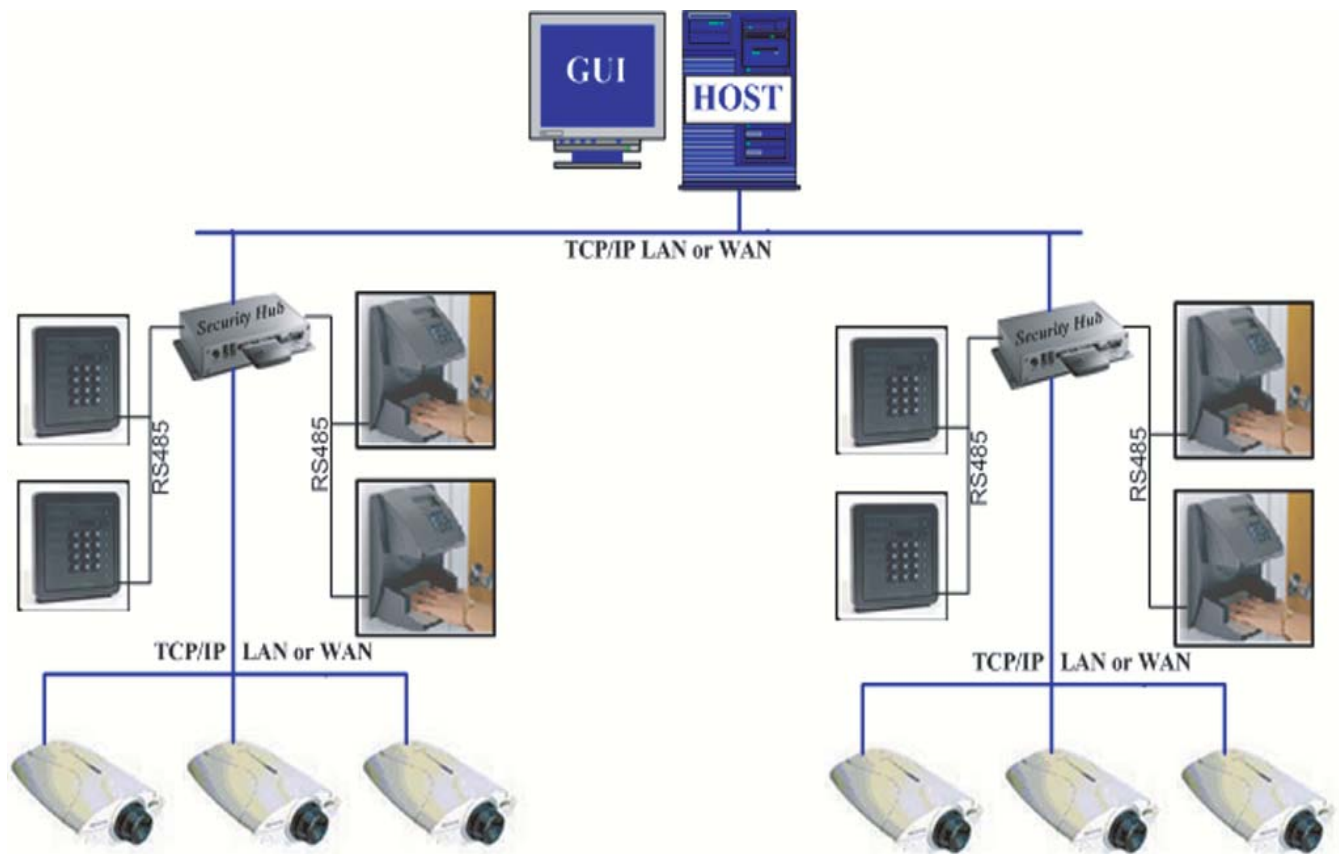
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