

- L. Each module shall be capable of accepting a standard or customizable file containing operational parameters and configuration data. The file shall be downloaded to the required module and shall not require any changes or modification to system firmware.
- M. The system shall allow the administrator to add, edit or delete IM configurations and descriptions. Each IM shall be separately defined to include the following:
 - a. User-defined descriptive name
 - b. Standard/customized configuration file
 - c. Missed and skipped consecutive polls before taking a module Aoffline@
 - d. Dynamic, adjustable buffer sizes for alarms commands and cardholder transactions
 - e. Module down alarm information to include alarm priority (0-255) and associated instructions and responses.
- N. Each input point shall be configured to include any or all of the following:
 - a. User-defined descriptive name
 - b. 2-state, 3-state or 4-state configuration
 - c. Monitored or status only point
 - d. Closed or open loop
 - e. Alarm event information to include alarm priority (0-255), operator response requirement before clearing, and associated instructions and responses
 - f. Local or global output set link
 - g. Alarm reporting time zones and reporting time zone delays
- O. Each output relay shall be configured to include any or all of the following:
 - a. User-defined descriptive name
 - b. Automatic activate time zone
 - c. Automatic operate time
- P. Each reader port shall be configured to include any or all of the following:
 - a. User-defined descriptive name
 - b. Associated door alarm point, request-to-exit and output relay
 - c. Timing values to include unlock time, alarm shunt time and pre-alarm time
 - d. Relock parameters on open

- e. Unlock parameters on request to exit
- f. Door held open alarm event information to include alarm priority (0-255), operator response requirement before clearing, and associated instructions and responses
- g. Reader mode operation during a specified time zone to include card only, card & PIN, card & PIN & Commands, PIN only, PIN & Commands, Card or PIN, and Card or PIN & Commands
- h. Automatic unlock time zones
- i. First unlock feature requiring the presentation of a valid card before the automatic unlocking on time zone is activated

2.13 DEVICE SETS

- A. The SMS shall support the creation of an unlimited number of input, output and reader sets to provide local and global device linking.
- B. The linkage feature shall provide the ability for any input, output and/or reader to be linked to keypad commands that may be performed systemwide.

2.14 ALARM INSTRUCTIONS AND RESPONSES

- A. The SMS shall support shall support an unlimited number of customized alarm instructions that shall be automatically displayed to operators when an alarm occurs. The alarm instructions shall be individually assigned to communication lines, IM=s and input points. Assignment of different instructions for different alarm conditions or similar alarm conditions in different alarm locations shall be possible.
- B. The system shall support an unlimited number of user-defined alarm responses that shall be automatically displayed to operators when an alarm occurs. The alarm responses shall be individually assigned to communication lines, IM=s and inputs points. Assignment of different responses for different alarm conditions or similar alarm conditions in different alarm locations shall be possible.

2.15 HOLIDAYS AND TIME ZONES

- A. The SMS shall support an unlimited number of holidays which may be used to alter cardholder access, alarm masking schedules and/or automatic device operation.
- B. Holidays shall be assigned an alphanumeric date and date selected from an embedded calendar.
- C. The system shall allow system administrators to assign defined holidays into logical groups. This feature shall provide the ability to group similar holidays

together which may be used to alter access rights and/or automatic device operation.

- D. The system shall support an unlimited number of time lines which may be used to define the days of the week and the hours of the day when an operation will occur or when access will be granted. Each time line shall consist of a start time, end time and day(s) of the week.
- E. The SMS shall present the timeline information in a graphic format to assist administrators in easily identifying the timeline details.
- F. The system shall support an unlimited number of time zones which shall be used to create the various daily time periods assigned to field devices and access levels. Each time zone shall include an unlimited number of time lines and associated holiday groups.

2.16 FACILITY ACCESS LEVELS

- A. The SMS must support the creation of an unlimited number of facility access levels used to restrict/allow cardholder access. Each access level shall contain the appropriate readers and time zones for granting cardholder access and shall offer the ability to assign a separate time zone to each reader within each level.
- B. The system must allow an unlimited number of facility access areas to be associated to each ID card, offering the ability to create small, precise access areas for logical sections of a facility. Systems that limit the number of access levels assigned to a cardholder are not acceptable.

2.17 MAPS

- A. The SMS shall allow the ability to import an unlimited number of customized maps, images, floor plans, photos or any computer-generated graphic capable of supplying files in any of the following formats: .jpg, .bmp, .gif, and .wmf.
- B. The system shall support an unlimited number of map layers logically arranged in a hierarchy format to represent device locations or zones. Each map shall be defined as a primary or zone map.
- C. Primary maps shall provide a high level view of the facility with zone maps providing specific area details, devices and zones within the facility.

2.18 DEVICE PLACEMENT

- A. The SMS shall display all defined maps and all available devices in a single window. The window shall display, in a list format, all system maps, zone maps, alarm zones, input points, output points and readers.
- B. The device/zone may be moved, via mouse or touchscreen, to the appropriate location on the map.
- C. Once a device, zone map and/or alarm zone is placed on a map, it shall be identified by an interactive standard icon to identify the device/zone type. System administrators may view the descriptive device name by placing the cursor over the device.
- D. After place the icon on the map, the device, zone map and/or alarm zone name shall be removed from the list to allow system administrators the ability to quickly and easily identify those devices that have not been assigned.

2.19 VIDEO INTEGRATION

- A. The SMS shall be compatible and integrated with the existing video surveillance system, Vision Systems.
- B. System administrators shall have the ability to define the IP address of the video surveillance system server, the default display size of the video and the number of pre and post alarm video, in seconds, to display in the SMS video window.
- C. The video integration shall not require any special hardware or software to immediately display live and stored video from any system camera during an SMS alarm event.

2.20 KEYPAD COMMANDS

- A. The SMS must provide the ability to define keypad commands available for use at any reader on the system or by executing the command from the system operator interface.
- B. Keypad commands may be used to arm/disarm inputs, activate/deactivate outputs, and/or lock/unlock cardreader doors.
- C. Keypad commands may be issued to perform functions on both a local and global level. Systems that require special hardware to activate global keypad command actions shall not be acceptable.
- D. Each keypad command shall be defined using a descriptive name and shall contain up to a four (4) digit code

- E. The system shall also allow the ability to control the LED operation of the reader where the command was executed. The reader LED may be configured to turn on/off with individual control provided to both the red and green LED (reader dependent).
- F. Once a keypad command is defined, it shall be assignable to any intelligent reader module systemwide.
- G. An unlimited number of keypad commands may be defined and a keypad command may be associated to any intelligent reader module.
- H. Execution of keypad commands shall be updated in real-time on the operator interface window.

2.21 ALARM ZONES

- A. The SMS shall provide the ability to logically group input points together in an alarm zone. This function provides operators the ability to perform any keypad command directly from the operator interface screen. Systems that require the execution of keypad commands via the cardreader keypad only shall be unacceptable.
- B. Each defined alarm zone shall be represented by a real-time interactive icon on the operator interface screen.
- C. Operators shall be able to perform any keypad command by simply selecting the zone icon and choosing the required function.
- D. Execution of keypad commands shall be updated in real-time on the operator interface window.

2.22 CARDHOLDERS

- A. The SMS shall allow the ability to define an unlimited number of cardholders. Cardholder information shall include:
 - a. Cardholder name
 - b. Employee number
 - c. Association information to include agency, title, department, telephone number
 - d. Cardholder status
 - e. Badge assignment type
 - f. ID card assignment to include access level and card status
 - g. Contact information with interactive email link

- B. The system shall maintain a comprehensive record of all cardholders, presented in a list format, and capable of immediately displaying the following:
 - a. Cardholder Name
 - b. Employee Number
 - c. Cardholder image
 - d. Cardholder association information including agency name, location, department, title, telephone number
 - e. Email address
 - f. Last ID card usage information to include reader used, access status, ID card number, date and time

- C. The system shall provide a search feature allowing administrators to find a specific cardholder record by simply typing one or more letters matching an individual's last name. The system shall only display those records matching the criteria entered.

- D. The system must be capable of capturing high quality cardholder images from any Windows-compatible live video source connected to the workstation, including built-in cameras. Systems that require the use of specialty or specific image capture equipment are not acceptable.

- E. Cardholder images shall be stored as a Binary Large Object (BLOB) within the cardholder record. Systems that store cardholder data outside of the database shall not be accepted.

- F. System administrators must be able to view and store a live image of the cardholder prior to image capture, allowing the option of capturing a new image without affecting any other information on the cardholder's record. The system must provide the ability to move, via mouse or touchscreen, a resizable image capture box over any portion of the image and store only the image within the outline of the box. Image quality such as brightness, contrast, color, tint and sharpness shall be adjustable via the mouse or touchscreen.

- G. The system must be capable of importing a cardholder's image using standard Windows imaging formats such as .jpg, .bmp, .pcx, .png and .tiff.

2.23 ID CARDS

- A. The SMS must be capable of assigning an unlimited number of ID cards to each cardholder. Each ID card must be capable of containing an unlimited

number of separate and independent facility access levels each with auto-activation and auto-expiration dates and an independent and user-definable pin number.

- B. The system shall also support an unlimited number of ID card site codes.
- C. Each ID card may also be marked as exempt from cardholder tracking and anti-passback rules, card usage limits, extended unlock time (0-255 seconds) and keypad command capabilities.
- D. The system shall maintain a history of all ID cards issued to a cardholder, allowing the ability to validate a card that has been previously invalidated.

2.24 OPERATOR INTERFACE

- A. The SMS shall provide an interface for operators to perform daily system monitoring and control functions. All operator functions shall be available from a single window providing easy-to-use intuitive touchscreen control to perform virtually any system function. Systems requiring operators to maneuver throughout multiple menus and/or control windows are unacceptable.
- B. The operator interface shall consist of dynamic graphic maps that display device status, monitoring information, functional task pane lists and video images in real-time.
- C. The center of the operator interface shall display the currently selected map. Device icons shall identify the real-time status of the devices and their locations within the facility. As a device changes state, the associated icon shall change shape and/or color to reflect its current condition.
- D. The system shall provide operators the ability to manually control any reader, input, output, or alarm zone connected to the system. Control options shall include:
 - a. Readers: Grant access, unlock a door, relock a door, view live video of the reader location.
 - b. Inputs: Bypass input, enable input, view live video of the input location.
 - c. Outputs: Turn output off, turn output on, view live video of the output location.

- d. Zones: Arm zone, disarm zone
- E. The SMS shall provide actionable, status-specific selections for each device shown on the map. The system shall monitor the status of the device and only provide those actions applicable to both the device and its current state.
 - a. By selecting a door in an alarm state on the map, the system shall display only those selections required of the operator to manage the current condition. The selections shall include acknowledge the alarm, clearing the alarm, viewing live video of the alarm or viewing stored video of the alarm.
 - b. By selecting a door in a normal, non-alarm state on the map, the system shall display door control options such as granting access, unlocking the door, relocking the door or displaying live video of the door location.
- F. Functional task panes lists located on the left and right side of the operator interface screen shall organize and display device and status information. By simply viewing the information within each list, operators shall be able to quickly assess the systemwide status of all devices.
- G. The right side of the functional task pane shall display all available map selections and all devices that are in monitored non-alarm and/or secured states. The following information shall be shown:
 - a. Available map list
 - b. Doors locked list
 - c. Outputs inactive list
 - d. Zones armed list
- H. The left-side of the functional task pane shall display only those systemwide devices that are in monitored alarm and/or unsecured states. The information shown shall include:
 - a. Active alarms list
 - b. Doors unlocked list
 - c. Outputs on list
 - d. Zones unarmed list
- I. When the operator selects a device from either right or left functional task pane list, the system shall automatically display the device on the assigned map. A circle shall be placed around the selected device for easy identification.

- J. All alarm events must take priority over any active non-alarm window by automatically placing the alarm screen over top of any other windows. Active alarms must be displayed first by user-defined priority level, then by date and time received.
- K. Active alarms shall be displayed in the left-side of the functional task pane and shall be announced using the text-to-speech feature of the system. The system shall announce the descriptive name of the alarm and identify the active alarm point using a flashing red icon on the center map graphic.
- L. Upon alarm acknowledgement, the icon shall stop flashing but shall remain red until the condition is restored to its normal, non-alarm state.
- M. The SMS shall not allow the clearing of an alarm condition unless the alarm has been restored to its normal, non-alarm state.
- N. Acknowledging and clearing of alarms must be updated systemwide in Areal-time@ on all monitoring workstations. The system must be capable of insuring all user-defined alarm requirements are met before an alarm may be cleared.
- O. The system shall maintain a complete history of all alarm events based on user-defined reporting requirements to include: responding operator=s name, displayed instruction set, operator selected responses, date & time received, alarm name, priority number, date & time acknowledged and date & time cleared.
- P. From the operator interface window, the system shall provide access to all stored video from the integrated video surveillance system. Operators shall be able to locate video based on device name/location, date and time. Operators shall be able to create a clip of any stored video on the system.
- Q. From the operator interface window, the system shall provide a Areal-time@ system activity list allowing operator's to view, in real-time, the status of cardholder access requests. For each access request, the system shall display the following information:
 - a. Request date and time
 - b. Reader name/location
 - c. Cardholder name

- d. Access request status, such as granted, denied, wrong door, anti-passback violation, etc.
 - e. Corresponding image of the cardholder
 - f. Corresponding agency/ company/affiliate information of the cardholder
 - g. Email address of the cardholder
- R. The system shall maintain a complete history of all cardholder access requests based on user-defined reporting requirements to include date & time of request, cardholder name, reader location, access request status.
- S. The system shall also provide the ability to generate reports of all system events, configurations, and modifications based on user-defined criteria.