

System/Equipment Requirements for Kantech Card Access, DSC Alarm, and Hikvision Network Camera Systems

Latest Revision: 06-03-2024

Prepared by: Ontario Aboriginal Housing Services

Contents

1. Introduction.....	3
Purpose of the Document:	3
Scope of Work:	3
Overview of Kantech Card Access, DSC Alarm, and Hikvision Network Camera Systems:	3
Kantech Card Access System:	3
DSC Alarm System:.....	4
Hikvision Network Camera System:	4
2. System Requirements	5
General System Requirements	5
DSC Alarm System Requirements	5
Hikvision Camera System Requirements	6
Kantech Card Access System Requirements	6
3. Equipment Specifications.....	7
DSC Alarm Equipment.....	7
Hikvision Camera Equipment.....	7
Kantech Card Access Equipment	8
4. Installation Requirements.....	8
Card Swipe Systems	8
Camera Systems	8
Alarm Systems	8

1. Introduction

Disclaimer: Upon review of the schematics and requirements for developments or projects these items and specifications may be adjusted at the discretion of OAHS.

Purpose of the Document:

The purpose of this document is to outline the system and equipment requirements for Kantech Card Access, DSC Alarm, and Hikvision Network Camera Systems. It serves as a comprehensive guide for contractors to understand the technical specifications and requirements for bidding on new development projects.

Scope of Work:

This document encompasses the necessary specifications and standards for the installation, integration, and maintenance of security systems including card access, alarm, and camera systems for new developments.

Overview of Kantech Card Access, DSC Alarm, and Hikvision Network Camera Systems:

Kantech Card Access System:

Overview: Kantech is a renowned brand known for its comprehensive card access control solutions. It offers a range of products including card readers, access control panels, software, and credentials for managing and securing access to buildings and facilities.

Key Features:

Scalability: Kantech systems are highly scalable, making them suitable for small businesses to large enterprises with multiple locations.

Integration: They offer seamless integration with other security systems such as CCTV, alarm systems, and biometric readers.

Access Control Levels: Kantech systems provide flexible access control levels, allowing administrators to define access permissions based on user roles and schedules.

Audit Trail: They maintain detailed audit trails, logging all access events for monitoring and compliance purposes.

Credential Options: Kantech supports various credential options including proximity cards, key fobs, and smart cards. Additionally, it offers mobile credential solutions for added convenience and security.

Applications: Kantech systems are widely used in commercial buildings, educational institutions, healthcare facilities, government buildings, and industrial sites where access control and security are paramount.

DSC Alarm System:

Overview: DSC (Digital Security Controls) is a leading provider of intrusion detection and alarm monitoring solutions. Their alarm systems are designed to protect properties against unauthorized entry, burglary, and other security threats.

Key Features:

Reliability: DSC alarm systems are known for their reliability and robustness, offering reliable detection and rapid response to security breaches.

Customization: They provide customizable alarm configurations to meet the specific security needs of different properties.

Monitoring Options: DSC systems support various monitoring options including self-monitoring, third-party monitoring services, and integration with central monitoring stations for 24/7 surveillance.

Wireless Connectivity: Many DSC systems feature wireless connectivity options, enabling easy installation and flexibility in system configuration.

Remote Access: They offer remote access capabilities, allowing users to arm/disarm the system, receive alerts, and view system status remotely via mobile apps or web interfaces.

Applications: DSC alarm systems are commonly used in residential homes, small businesses, retail stores, banks, and commercial properties to safeguard against intrusion and property damage.

Hikvision Network Camera System:

Disclaimer: OAHS is now looking for a new camera system solution and are migrating from Hik-Vision systems. This will be revised once a new solution has been decided on.

Overview: Hikvision is a leading manufacturer of video surveillance products, including network cameras, DVRs, NVRs, and video management software. Their network camera systems offer high-definition video recording and remote monitoring capabilities.

Key Features:

High Resolution: Hikvision cameras are available in various resolutions, including 4K and higher, to capture clear and detailed images for identification and evidence purposes.

Wide Dynamic Range (WDR): Many Hikvision cameras feature WDR technology, which ensures balanced exposure in challenging lighting conditions, such as bright sunlight and shadowed areas.

Smart Analytics: Hikvision cameras incorporate advanced analytics capabilities such as motion detection, intrusion detection, facial recognition, and license plate recognition for proactive security monitoring.

Remote Monitoring: They offer remote viewing and playback capabilities, allowing users to access live and recorded video footage from anywhere via mobile devices or web browsers.

Integration: Hikvision cameras seamlessly integrate with Hikvision's video management software (VMS) as well as third-party VMS platforms for centralized management and control.

Applications: Hikvision network camera systems are widely deployed in various sectors including retail, banking, transportation, critical infrastructure, city surveillance, and residential communities for enhancing security and situational awareness.

2. System Requirements

General System Requirements

Scalability

The systems that are installed in the development should have space/capability so that OAHS is able to add additional equipment in the need of more cameras, and card readers.

DSC Alarm System Requirements

Intrusion Detection

The areas of coverage are to include as follows:

Contact Sensor Locations

1. Any external doors to the building.

Motion Detector Locations

1. Any Hallways.

Heat Sensor Locations

1. Any open space deemed required as per fire safety requirements.

The reason as to why heat sensors are required as apposed to smoke sensors is due to the ceremonial and cultural acts that the organization may perform such as smudging.

Panic Buttons

1. Must have at a minimum of 2 wireless panic buttons available for OAHS staff usage.
2. Must have a minimum of one wired panic button at reception location.

Hikvision Camera System Requirements

Coverage Area

The areas of coverage are to include as follows:

1. External Entries.
2. Hallways.
3. Stairwells.
4. Laundry Areas.
5. Parking Lots.
6. Any other locations deemed required by Ontario aboriginal housing services staff after review.

Resolution

All cameras must record and have a live resolution at a minimum of 4MP, 1080p.

Night Vision

External cameras are required to have the ability to view in night operation.

Motion Detection

The network video recorder is required to be programmed to have all cameras store information in a continuous state. This is to prevent loss of important data if recording in motion state.

Integration with Other Systems

The camera system(s) that are installed are required to be compatible with Hik-Connect and iVMS – 4200 software.

System Isolation

Any area that is to be leased to a separate organizational entity must have a separate camera network recording unit as to isolate the management and maintenance of the systems.

Kantech Card Access System Requirements

System Isolation

Any area that is to be leased to a separate organizational entity must have a separate card access to isolate the management and maintenance of the systems.

Integration with Other Systems

The KanTech K-400 card swipe system(s) installed are required to be compatible with EntraPass Corporate Edition software, and able to integrate with DSC PC1832 PowerSeries alarm panels.

3. Equipment Specifications

DSC Alarm Equipment

System Isolation

- Any area that is to be leased to a separate organizational entity must have a separate access to a keypad and sectioned into a different partition to isolate the management and maintenance of the systems.

Sirens/Alarms

- Must have a siren installed beside the alarm panel at a minimum.

Keypads

- A Keypad must be installed near staff entrance to development.
- A Keypad must be installed near staff entrance to leased section of development.

Hikvision Camera Equipment

Cameras (number and type)

- Cameras must be domed if installed internally.
- External cameras must either be Bullet, or dome cameras.

NVR (Network Video Recorder)

- Must store up to 30 days of footage as a minimum.
- Must be able to be remotely administrated.

Cabling and Wiring

- The cabling for the cameras will be Cat6e cable internally.
- If the cables are not routed in a way that prevents their potential exposure to the elements, or tampering from external user, then the wire is to be placed within conduit, track, underground, Electrical boxes etc. appropriate to the requirements of the location.
- Externally, if the wire is not in conduit, then the cabling must be shielded Cat6e cable.

Mounting Hardware

- Cameras located one the exterior of buildings must be attached to a wall mount bracket appropriate to the camera, mounted on the side of the building.

Power Supply

- Cameras are to be powered through PoE via the NVR.
- Only if there is no means to power the camera via NVR, then an external PoE injector appropriate to the camera will be installed.

Kantech Card Access Equipment

Card Readers

- The wire required for the installation of the card access system card readers will be a minimum of Cat5.
- This will allow for 4 pairs of wires for the connections of the card reader.

Access Control Panels

- The access control panels must be KT-400 or equivalent. There must be room after the installation to allow for a minimum of one additional door for space.

Electric Locks/Strikes

- The wire required for the installation of the door strike will be single pair 18-gauge stranded wire for the positive and negative inputs of the strike.

4. Installation Requirements

Card Swipe Systems

- The equipment must not be in a tenant's residence.
- Must be in a locked location.

Camera Systems

- The equipment must not be in a tenant's residence.
- Must be in a locked location.
- The camera system must be in a locked, minimum 8U data rack and installed at a serviceable height.
- Camera system must have a monitor connected for viewing and management.

Alarm Systems

- The alarm panel and equipment must not be in a tenant's residence.
- Must be in a locked location.