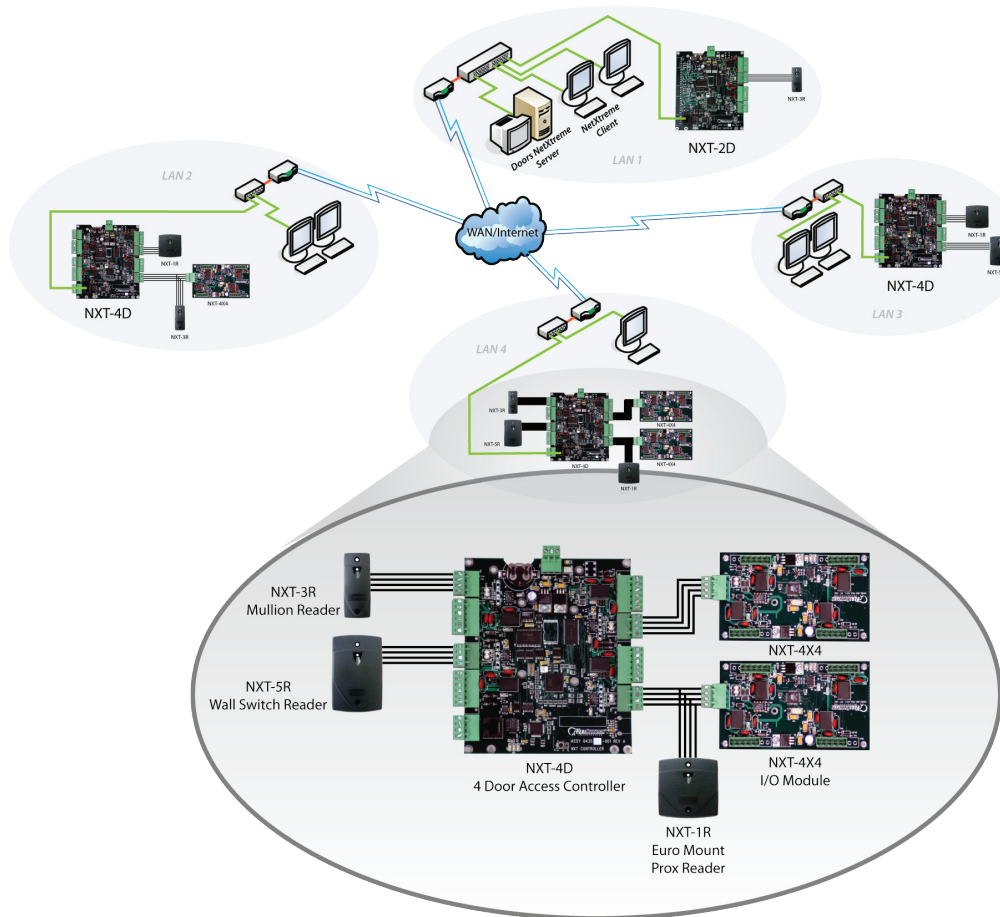




# Doors NetXtreme™ System Architecture Overview

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**Doors NetXtreme™** is Keri's newest access control platform providing unmatched system flexibility, ease of use, and cost effectiveness. Utilizing true peer-to-peer TCP/IP (Ethernet) communications for networking between controllers and software, the system has eliminated the single point of failure prevalent in many other access control systems. A new standard in security, NXT is first of a new generation of equipment to utilize encrypted data from Cards to Readers as well as reader supervision. Extremely intelligent controllers operate virtually autonomously minimizing network traffic and eliminating bandwidth concerns. Unmatched security does not come at a price however. Using the latest in electronic processing and networking technology, NXT is one of the most cost effective systems on the market.



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# NetXtreme™

## System Architecture Overview

### Model Numbers and Descriptions

#### Software, Controllers, and Accessories

Doors NXT	Access Control Software "Doors NetXtreme"
NXT-4D	4 Door Access Controller
NXT-2D	2 Door Access Controller
NXT-4x4	I/O Module (4 Input / 4 Output)

#### Proximity Readers and Reader Accessories

NXT-1R	Euro Mount Prox Reader
NXT-3R	Doorframe/Mullion Reader
NXT-5R	Wall Switch Reader
NXT-RM3	Reader Interface Module

#### Proximity Cards and Tags

NXT-C	Clamshell	NXT-I	ISO no mag stripe
NXT-K	Key Tag	NXT-S	ISO with mag stripe

### Product Description

#### System Architecture and Software – Doors NetXtreme

- Thin Client / Server Architecture
- SQL Compliant
- Convenience of a Browser without the security risks
- Setup system with auto configuration or manual entry
- Define "templates" for Doors, Inputs, and Outputs that can be replicated and reused
- Powerful user definable logical functions

#### Controllers

- 2 or 4 door versions
- TCP/IP on-board based for peer-to-peer communication and to host
- Multiple 485 networks for communication to expansion boards and readers
- Embedded MAC address for easy discovery and true 1 button auto configuration
- Flash updates

#### I/O Expansion Board

- 4 supervised inputs / 4 outputs
- Flash updates
- Networked via RS-485 to Controller
- Connected to Controller via RS-485 with a "heartbeat" so readers are supervised

#### Readers

- Connected to Controller via RS-485 with a "heartbeat" so readers are supervised
- Encrypted data from Cards to Readers to Controllers
- 128 bit encrypted format
- 1,000' (300 meters) cable distance to controllers

#### Reader Interface Module

- Flexible mounting options: plugs into either the main controller or the I/O Expansion board
- Converts either Keri MS format, Wiegand, or Mag Stripe to NXT encrypted format
- Mix and match reader types on any given controller



# NetXtreme™ System Architecture Overview

## Product Applications

### Doors NetXtreme™

- Choose *NetXtreme's* Thin-Client/Server Software if you are truly concerned about your corporate security. Why would anyone use a browser application for access control? Under a browser interface, anyone with the master IP address and a password can access your system. Your security is dependent upon a client (a browser) which is the main target of most computer hackers, and one of the primary means of passing viruses between computers.
- In *NetXtreme's* Photo Badging applications, a separate Badging Client is provided to minimize the confusion of having a badge administrator learn how to navigate an Access Control system.
- The ultimate in portability! At a miniscule 15 Mb, the smallest "thumb drive" can easily carry the Doors *NetXtreme* Thin Client. Just take your client with you!
- Two means of system configuration:
  1. For small systems, *NetXtreme's* "Autoconfig" function finds all hardware and virtually eliminates data entry errors while minimizing system configuration time.
  2. For large systems, *NetXtreme's* powerful hardware definitions allow the operator to pre-configure powerful user-definable, logical functions.

### Controllers: NXT-2D™ and NXT-4D™ Two & Four Door Access Controllers

- The price of wire and labor continues to escalate. Place an *NXT-2D* near the door to eliminate long, expensive multi-conductor runs to the door for Readers, Locks, REX, Door Sense, and Alarm.
- The *NXT-4D* allows for easy concentration of units within a rack-mountable enclosure, centrally located in an IT room, without a lot of Ethernet connections.
- Forget about pulling 2 or 4-wire (shielded) dedicated networks. Now your corporate network is your access control network! Cat-5 or Cat-6 cabling is fine and if you don't have a corporate network, then simply start a new one using the easy to run, inexpensive, and readily available cable.
- Minimize your set-up time on new systems or add-ons. *NXT-2D* and *NXT-4D* controllers support a one-button auto-configuration process with embedded MAC addresses. Quick-connect terminals provide the installer with true ease of installation. Troubleshooting becomes much simpler when controllers can be easily substituted and rotated in and out of position.
- Consider the power of remote site management. Wherever you can connect to your network, control over the access system is available. Multiple sites can be managed as one.
- Never worry about upgrades or obsolescence. *NXT-2D* and *NXT-4D* controllers are "flash" programmable and re-programmable. Upgrading will be fast and easy.

# NetXtreme™

## System Architecture Overview

### Product Applications

#### I/O Expansion Board: NXT-4x4™

- You want to centralize your control, yet minimize the cost of expensive wiring? No problem. Put your controllers in a secure location and use Keri's secure 485 buss (4 conductors, power included) to allocate just the right amount of I/O wherever you want it, using the *NXT-4x4* for general monitoring or output control.
- Minimize your cable run by putting local control right at the door even though your controllers are centrally located, because the *NXT-4x4* communicates on the exact same 4-wire buss as the readers.
- Do you want to run Wiegand or MS readers up to 1,500 feet away from a controller? The *NXT-4x4* can host a *RM3 Reader Interface Module*. Run your reader up to 500 feet away from the 4x4 and the, utilizing the communication buss, place the *NXT-4x4* up to 1,000 feet away from the *NXT-2D* or *NXT-4D*, all on only 4 conductors including power.
- Bring Local Door Alarm (LDA) functionality into your access system by providing additional I/O placed directly at the door. This provides a logical interface between normal access control door functions and Intrusion System functions. Best of all, your LDA events are now reported through your access control system.

#### Reader Interface Module

- Retrofit virtually any existing access control job to Keri's *NXT* system using the *RM3* which provides an interface to Wiegand or MS reader formats.
- Create a mixed-mode controller by adding one Wiegand reader to any buss, but keeping the enhanced security of Keri's *NXT* readers on the other busses; perfect for jobs where a single biometric reader or RF "clicker" is needed at only a single reader or gate.

#### Readers

- There are a number of schemes available on the Internet that show someone how to easily defeat a Wiegand reader.\* How do I provide better security? The Keri *NXT* family of readers sits on an RS-485 buss and uses encrypted data from cards to readers, creating a far more secure offering than traditional Wiegand offerings.
- Keri's *NXT* family of readers have built in supervision that is monitored through the software, providing immediate feedback if a reader is compromised.
- Plenty of jobs require readers to be located more than 500 feet away from the controller. Keri's *NXT* line of readers can be located up to 1,000 feet away, which is perfect for combined building/parking applications or tall elevator control runs.

\* [http://www.channelinsider.com/article/2\\_Screws+1+Plastic+Cover+How+Many+Airports+Infiltrated/212907\\_1.aspx](http://www.channelinsider.com/article/2_Screws+1+Plastic+Cover+How+Many+Airports+Infiltrated/212907_1.aspx)

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