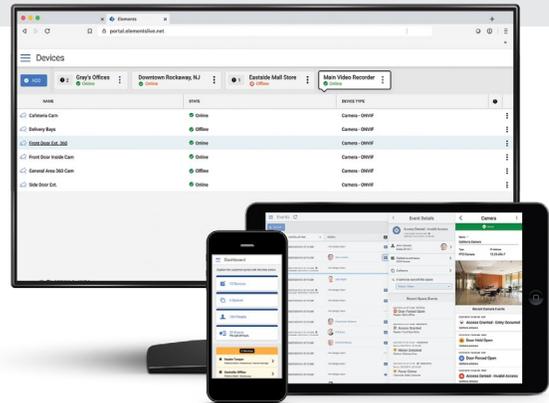


# Elements

Security in its simplest form



## Overview

The LenelS2™ Elements™ system is a comprehensive, intuitive access control and video solution built for the cloud. The Elements system is a scalable solution, ideal for small- to medium-sized businesses to enterprises with satellite locations. The system is available as a standalone solution but can also integrate with the OnGuard® access control platform using the Elements OnGuard Connector to extend enterprise-level security to any building or office.

**User Interface:** The Elements web portal – the user interface – is simple and intuitive for users of any background. The web portal is designed to be accessible and usable from any device including mobile phones and browsers.

**Video Recorder:** Designed specifically for the Elements system, the Elements Video Recorder provides a cost-effective, high performance on-premise video storage solution, which enables secure access to video from anywhere and at any time via the cloud.

**Mercury Controllers:** All Elements controllers and reader interfaces are provided by Mercury Security, delivering secure communications from readers to the cloud.

**BlueDiamond Readers:** LenelS2 BlueDiamond™ readers provide a feature-rich reader platform with support for Wiegand, OSDP™ and OSDP Secure Channel protocol. Simultaneous support for a wide range of smart cards including HID iCLASS®, MIFARE® and DESFire® EV1 and EV2.

**Mobile Credentials:** A smart alternative to plastic badges, mobile credentials enabled through the BlueDiamond mobile app offer convenience without compromising security. Credentials can be easily allocated to new phones or people, and remotely deactivated all from within the Elements user interface.

## Key Features

### Cloud-based Access Control and Video Management System

- Mobile first: full system access to monitor and manage your system from any mobile device
- Enterprise ready: scalability of system through use of the Elements OnGuard Connector
- Event monitoring: know what's happening with your system from any device, anytime, anywhere
- Role-based access control: detailed credential-driven roles and permissions for users
- Command and control: grant temporary access or lock doors from a mobile device
- Real-time hardware events: interact and monitor the Elements access control system in real time, from anywhere
- Reporting: export activity and audit transactions for archiving and forensic analysis

### Web Portal

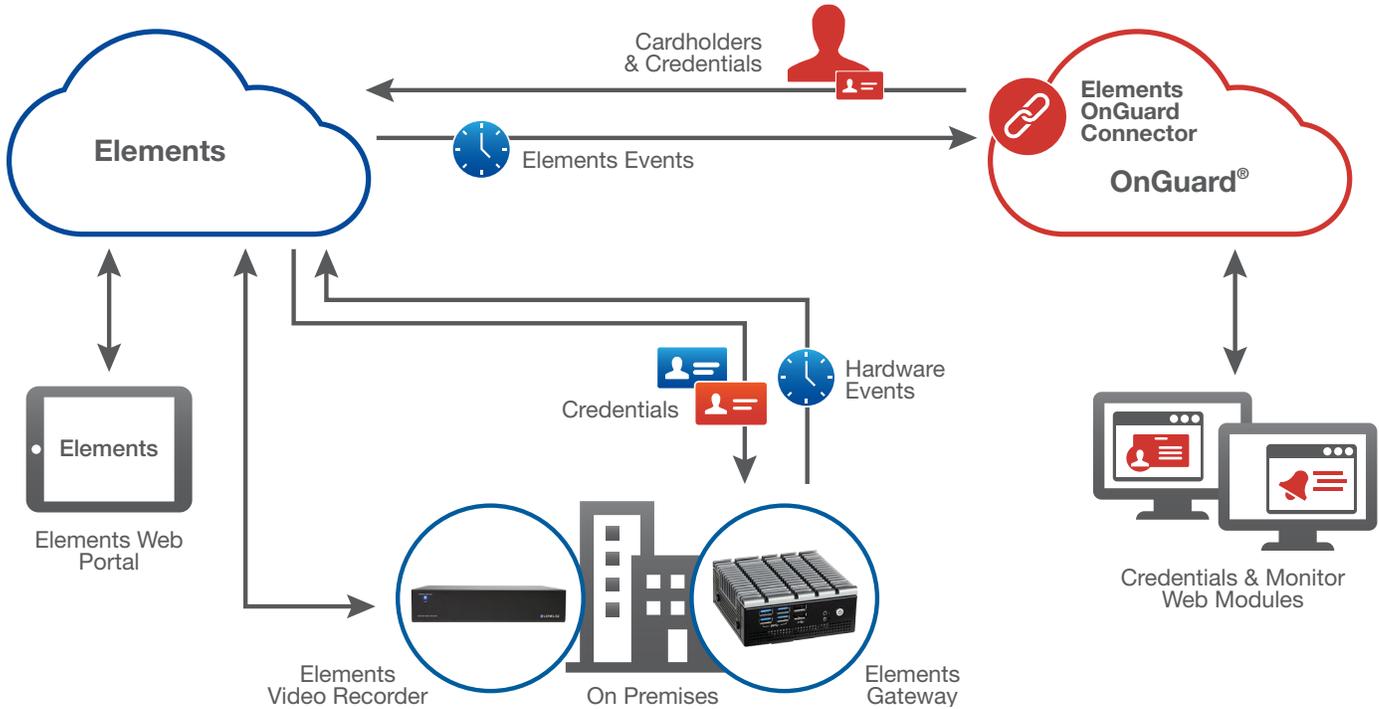
- Simple and intuitive: separate portals for VARs and end users enable managed or self-managed solutions
- Native video integration: integrates exclusively with the Elements access control system for unified system management
- Video viewing: perform live monitoring or recorded playback from any camera directly from the Elements platform with no browser add-ons, no external VMS, or extra software required
- Video search: easily search recorded video by date and time to quickly find events of interest
- Easy access to video: video is optimized through a peer-to-peer connection or cloud routing allowing real-time video streaming to most mobile phones, tablets and browsers

### System

- Integrated BlueDiamond mobile credentialing
- Secure and private by design: robust hardware security and cybersecurity; cloud to card encryption
- Supports Wiegand, OSDP and OSDP Secure Channel readers

# Elements

## Data flow between the Elements and OnGuard systems using the Elements OnGuard Connector



## Specifications

Access Control	
Total number of credentials	10,000
Total number of readers	Up to 64 per site
Total number of spaces	Up to 32 per person
Event rate	5,000 events per day (assuming an average of 10 events per minute during an 8-hour day)
Total number of controllers	Up to 4 per site
Total number of card formats	Up to 15 customer-defined card formats
Total number of facility codes	Up to 15 facility codes

Video	
IP cameras	Up to 16 ONVIF
IP camera resolution	Camera dependent, up to 4K*
IP camera frame rate	Camera dependent
Compression type	H.264
Storage	8TB

\*Network data rate may affect performance

# Elements

## Compatible Hardware and Components

Access Control Hardware	
SAS-GTWY-01	Elements Gateway
LNL-X2210	Intelligent Single Door Controller
LNL-X2220	Intelligent Dual Door Controller
LNL-X3300	Intelligent System Controller
LNL-X4420	Advanced Intelligent Dual Reader Controller
LNL-1300-S3	Single Reader Door Interface
LNL-1320-S3	Dual Reader Door Interface
LNL-1100-S3	Input Control Module
LNL-1200-S3	Output Control Module
Credentials	
LNL-EV22KPP	DESFire EV2 PVC Credential
LNL-EV22KPPFOB	DESFire EV2 Plastic Keyfob 2K 13.56MHz
LNL-EV22KPPMG	DESFire EV2 ISO PVC 2K 13.56MHz
LNL-EV28KPP	DESFire EV2 ISO Composite 8K 13.56MHz
LNL-EV28KPXPP	DESFire EV2 ISO Composite 8K with Proximity Chip Card
LNL-EV28KPP	DESFire EV2 ISO Composite 8K 13.56MHz

Video Hardware	
LS2-EVR-100	Elements Video Recorder, up to 16 IP cameras, 8TB of storage
BlueDiamond Mobile-enabled Readers	
LNL-R11330-05TB	Multi-technology Mini-mullion Reader
LNL-R11320-05TB	Multi-technology Standard-size Reader
LNL-R11325-05TB	Multi-technology Standard-size Reader with PINpad
LNL-R11030-85TB	Multi-technology Prox + Mobile Mini-mullion Reader
BlueDiamond Mobile-ready Readers	
LNL-R10330-05TB	Multi-technology Mini-mullion Reader

## Kits

Name/SKU	Qty	Hardware	Description
<b>Elements Two Reader Kit</b> LS2-ELEMENTS-2R	1	SAS-GTWY-01	Elements Gateway to connect LenelS2 panels to Elements Cloud Server
	1	LNL-X2220	Intelligent Dual Reader Controller
	1	LSP-CTX4DR	Power Supply/Enclosure: 20H x 16W, 4DR pre-wired CTX cross-single voltage. Pre-wired for 2 LenelS2 panels on main. 4A 12VDC with FAI, low battery disconnect, network ready, fits 8Ah battery sets, UL CUL, lifetime warranty
	2	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader
<b>Elements Four Reader Kit</b> LS2-ELEMENTS-4R	1	SAS-GTWY-01	Elements Gateway to connect LenelS2 panels to Elements Cloud Server
	1	LNL-X2220	Intelligent Dual Reader Controller
	1	LNL-1320-S3	Dual Reader Interface Module
	1	LSP-4DR-E4M	Power Supply/Enclosure: 24H x 20W, fits 2 LenelS2 Controllers, 2A 12VDC system and 2A 24VDC lock, 8 aux PTC and 4 lock PTC outputs, fits 8Ah battery sets, UL CUL, lifetime warranty
	4	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader
<b>Elements Eight Reader Kit</b> LS2-ELEMENTS-8R	1	SAS-GTWY-01	Elements Gateway to connect LenelS2 panels to Elements Cloud Server
	1	LNL-X2220	Intelligent Dual Reader Controller
	3	LNL-1320-S3	Dual Reader Interface Module
	1	LSP-8DR-E4M1	Power Supply/Enclosure: 24H x 20W, fits 4 LenelS2 Controllers (2 main, 2 door), 4A 12VDC system and 4A 24VDC lock, 8 aux PTC and 8 lock PTC outputs, fits 8Ah battery sets, UL CUL, lifetime warranty
	8	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader

# Elements

## Add-on Kits

Name/SKU	Qty	Hardware	Description
<b>Elements Sixteen Reader Kit</b> LS2-ELEMENTS-16R	1	SAS-GTWY-01	Elements Gateway to connect LenelS2 panels to Elements Cloud Server
	1	LNL-X2220	Intelligent Dual Reader Controller
	7	LNL-1320-S3	Dual Reader Interface Module
	1	LSP-16DR-E6M1	Power Supply/Enclosure: 30H x 23W, fits 8 LenelS2 Controllers, 12A 12VDC system and 12A 24VDC lock, 16 aux PTC and 16 lock PTC outputs, fits 8Ah battery sets, UL CUL, lifetime warranty
	16	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader
<b>Elements One Reader Add-on Kit</b> LS2-ELEMENTS-1R-EX	1	LNL-X2210	Intelligent Single Door Controller, powered by PoE, PoE+ or 12VDC
	1	LNL-CONV-1	Plastic Adapter Plate to mount a single LenelS2 controller (LNL-X2210)
	1	LSP-CTX4DR	Power Supply/Enclosure: 20H x 16W, 4DR pre-wired CTX cross-single voltage. Pre-wired for 2 LenelS2 panels on main. 4A 12VDC with FAI, low battery disconnect, network ready, fits 8Ah battery sets, UL CUL, lifetime warranty
	1	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader
<b>Elements Two Reader Add-on Kit</b> LS2-ELEMENTS-2R-EX	1	LNL-1320-S3	Dual Reader Interface Module
	1	LSP-CTX4DR	Power Supply/Enclosure: 20H x 16W, 4DR pre-wired CTX cross-single voltage. Pre-wired for 2 LenelS2 panels on main. 4A 12VDC with FAI, low battery disconnect, network ready, fits 8Ah battery sets, UL CUL, lifetime warranty
	2	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader
<b>Elements Four Reader Add-on Kit</b> LS2-ELEMENTS-4R-EX	2	LNL-1320-S3	Dual Reader Interface Module
	1	LSP-4DR-E4M	Power Supply/Enclosure: 24H x 20W, fits 2 LenelS2 Controllers, 2A 12VDC system and 2A 24VDC lock, 8 aux PTC and 4 lock PTC outputs, fits 8Ah battery sets, UL CUL, lifetime warranty
	4	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader
<b>Elements Eight Reader Add-on Kit</b> LS2-ELEMENTS-8R-EX	4	LNL-1320-S3	Dual Reader Interface Module
	1	LSP-8DR-E4M1	Power Supply/Enclosure: 24H x 20W, fits 4 LenelS2 Controllers (2 main, 2 door), 4A 12VDC system and 4A 24VDC lock, 8 aux PTC and 8 lock PTC outputs, fits 8Ah battery sets, UL CUL, lifetime warranty
	8	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader
<b>Elements Sixteen Reader Add-on Kit</b> LS2-ELEMENTS-16R-EX	8	LNL-1320-S3	Dual Reader Interface Module
	1	LSP-16DR-E6M1	Power Supply/Enclosure: 30H x 23W, fits 8 LenelS2 Controllers, 12A 12VDC system and 12A 24VDC lock, 16 aux PTC and 16 lock PTC outputs, fits 8Ah battery sets, UL CUL, lifetime warranty
	16	LNL-R11330-05TB	BlueDiamond Multi-technology Mini-mullion Reader



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(866) 788-5095

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