Feature Summary

- A complete, enterprise class integrated system in a single box
- 100% Web user interface - *including video functions*
- Supports proven S2 Security Network Nodes and MicroNodes
- Widget Desktop support for customized monitoring displays
- Built-in documentation library with web browser access
- Complete, enterprise class access control system
- Complete, enterprise class monitoring system
- System "landing page" shows full system status at a glance
- Fully integrated video throughout the system (VR only)
- Forensic Desktop function locates and exports video evidence
- Forensic case creation with single frame and full video export
- Support for many common IP cameras
- Network appliance handles its own administration
- 100% solid state design (NetBox only)
- Dual hard disks with RAID for access database and O/S (VR only)
- Includes 2-year hardware and 1-year software warranty

Product Overview

The *S2 NetBox* brings the power of the S2 NetBox web-based security appliance to applications that can benefit from advanced features even though they are smaller in scale. NetBox systems integrate credential-based access control, intrusion detection, and video applications, delivering a unified management and administration experience using only your web browser. With support for up to 32 access control readers, these systems are ideal for a range of uses from independent organizations to field offices of large enterprises.

The *S2 NetBox* ***VR*** starts with the NetBox's capabilities and adds video surveillance, forensics and support for 16 cameras. It tightly integrates S2's NetBox system management software with its NetVR video management solution, adding video recording, advanced surveillance, and amazingly powerful forensics. The seamless integration of access control, event monitoring, and video in the NetBox *VR* lets you interactively explore recorded video. Using the unique Forensic Desktop facility, you can locate video of many incidents in one click, right from the activity log. Its rich search capabilities let you find almost any video of interest within a minute or two.

Users connect to the system over the network using web browsers. S2 Network Nodes for access control and monitoring functions, IP cameras or adapters for video recording, and other devices managed by the system are connected to the network as well. Other than terminal connections for camera power, access controlled doors and intrusion detection points, an IP network is all of the connectivity the system requires.

The S2 NetBox package includes an S2 Network Controller module, an S2 Network Node module, one Access Control Module (ACM) and internal power supply, all in a single enclosure. Add-on modules are available to support two full portals (2 readers, 4 inputs, and 4 outputs), eight inputs, eight outputs, or eight temperature points, and

A complete, enterprise class, integrated system in a single box.

installers can mix and match module types to achieve the required mix for their applications. Further expansion is easily accomplished by adding additional nodes or MicroNodes to a limit of 32 readers, 512 inputs, and 512 outputs.

The network controller for the NetBox is fully solid state, including processor, memory, and SSD while the *VR* employs an upgraded processor and dual spinning disks for storage. Both the NetBox and the NetBox VR use the architecture of S2's popular *Extreme* platform, proven in hundreds of thousands of operating hours on the job. The ***VR*** edition is provided in a tabletop enclosure with included mounting hardware for 19" equipment racks.

S2 SECURITY

Smaller Scale Yet Enterprise Class

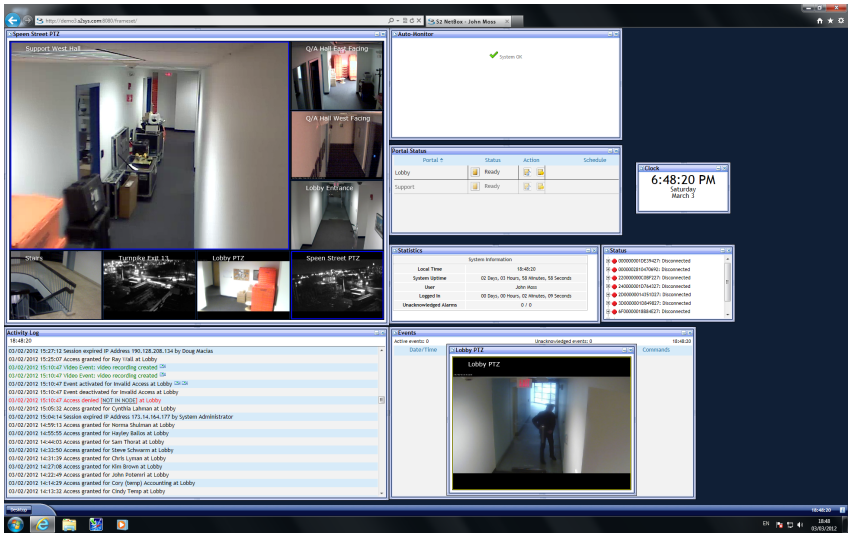
S2 NetBox and S2 NetBox VR products bring you a rich user interface that integrates your access control, alarm and event monitoring, and video. In the real time monitoring mode, you can operate your running system, seeing and reacting to real time events and video from the NetBox integrated monitoring displays. An administrative mode supports operations on the card access database, video forensics, and report generation for permitted users. The configuration mode lets authorized users completely tailor the system environment from user privileges to custom monitoring displays.

These systems deliver the well known enterprise-class capabilities of the S2 Enterprise, but for smaller deployments. Using the S2 Global architecture, its easy to build enterprise scale systems with central management and oversight, one small piece at a time. Creating a security network out of appliances at the network edge is often the most cost-effective and robust way to secure a geographically distributed organization.

As with all S2 products, the S2 NetBox is incredibly easy to use. Although NetBox is a physical appliance that connects to a network, users access it using a web browser and the system operates like a very sophisticated web site. Video is delivered through the web browser as well, and at speeds suitable for real time surveillance - an industry first.

Given the small physical size of the NetBox systems, its tempting to underestimate the richness of their capabilities. During configuration, you'll find all of the advanced enterprise class options the enterprise user would need. Features like integrated badging, regional anti-passback, and expiring access levels that you expect to find in solutions for the enterprise, are right there in S2 NetBox and NetBox VR. Because these are true network appliances, they manage their own resources, and handle their own administration from database grooming to system backups.

S2 NetBox is a *complete* solution. In addition to providing rich applications for access control, monitoring, and video management, NetBox handles routine system management chores including software update, system backup, database optimization, and the like, reducing the maintenance effort required by IT staff.



NetBox's Widget Desktop technology seamlessly integrates all aspects of real time security monitoring: video surveillance, access control, and alarms. Users can use the built-in desktops or build their own to address unique monitoring needs. A drag-and-drop designer with variable grid size makes great looking displays with little effort.

When starting out or migrating from another system, the provided Data Management Tool (DMT) can be used to perform initial data loads from a simple CSV file. Every night, data backups occur automatically and write their results to flash memory with optional duplicates written to NAS or an FTP server. And, database maintenance is performed silently and automatically by NetBox itself, without user intervention.

As easy as the system is to use, should there ever be need to consult the documentation, a complete reference library is included built into the user interface. Software updates are available electronically, and are easily applied locally or remotely.

The S2 NetBox system is maintained, supported, and enhanced by S2 Security, the leader in advanced security network appliances. And, if users ever outgrow its capabilities, it's comforting to know that it can be field-upgraded to S2 Enterprise, retaining all the installed field hardware as well as the accumulated data.

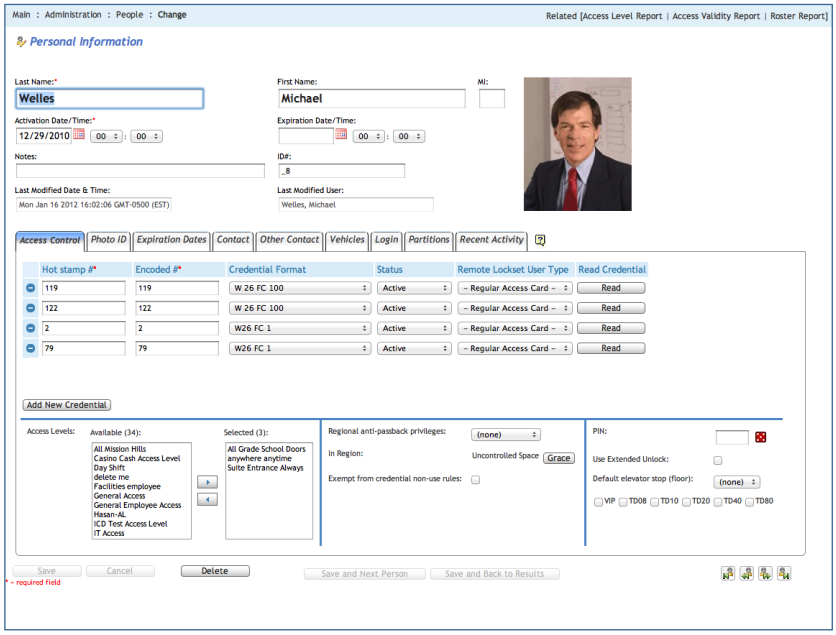
Access Control Integration

At the heart of NetBox's software is S2's access control system, proven in thousands of systems worldwide. NetBox access control lets you create a database of people, their credentials, and their access privileges. The system then manages the live access control administration and monitoring, archiving the history for reporting and optionally associating video with the access control events.

Data about access control credential holders is stored in a SQL-compliant database. In addition to access privileges, each person record optionally holds information about vehicles, personal data, and office directory data. User custom data fields can be entered and searched using the *person locator* feature that lets you quickly find one or more records that match the search terms. You can then list the matches and easily edit the resulting records. Its straightforward to integrate custom applications with NetBox using the NBAPI interface, and bulk

data inserts, edits, and deletes can be accomplished with the supplied Data Management Tool.

Photos can be imported from files or captured live using the optional ID badge feature. The badge creation process, including photo capture, is conducted from within a web browser. Badge printers can be network connected or connected to the client computer.



The S2 NetBox access control database is advanced but still easy to work with.

Every access control event is immediately available for display across the system through the web interface. Local users, remote users, and even permitted mobile device users can monitor the system in real time. Events are also placed into a permanent archive that is referenced by the built-in report writer. Users can take advantage of the many packaged reports, or build their own depending on specific need. Users who want to use NetBox event data outside of the system, can export the data to CSV, access it through the API, or use the database views the system publishes through ODBC.

Door management functions like scheduled unlock times and "first-in unlock" are supported. Also provided is S2's unique remote unlocking protocol. Designated access cards, when presented twice in quick succession, cause a sustained unlock or re-lock at portals where the feature is enabled. Enterprise features such as two-man access control, badge types, elevator access control, and much more are part of the standard system software.

In addition to Network Nodes and MicroNodes from S2 Security, NetBox supports access control hardware from Mercury Security and Assa Abloy, allowing the utmost flexibility in system configuration.

Monitoring Integration

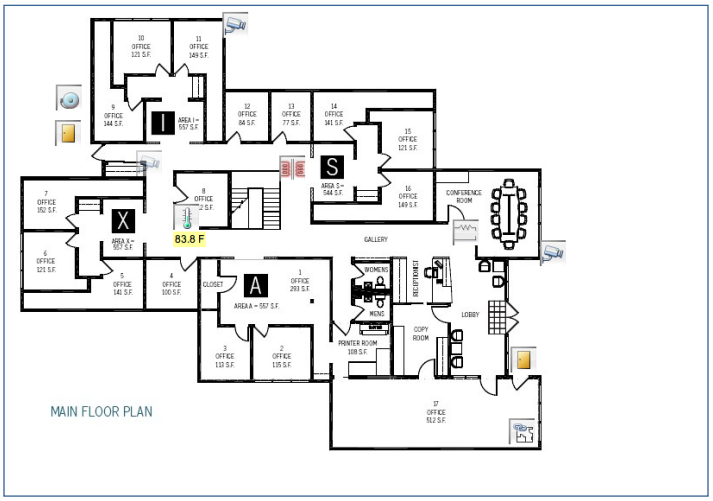
Systems spend much more time being monitored than they do being configured or administered, and NetBox pays special attention to creating an informative and flexible, yet completely intuitive monitoring experience. Access control logs, event monitoring, and video surveillance are seamlessly integrated throughout the system. Events in the activity log for which there is recorded video display an icon that replays that video instantly with one click of the mouse.

S2 Security's signature widget desktop lets you design your own monitoring and management displays that operate in real time.

Central station monitored intrusion detection† is incorporated into NetBox through its interface with DMP's XR500 series alarm panels. Users can monitor the alarm system, arming and disarming as required, while the central station dispatches first responders as necessary. Alarm panel status can be monitored and changed from the included *alarm panel widget*.

The *activity log* displays all system activity as it happens. The log can be dynamically filtered by typing filter text, and the log immediately responds. Entries in the activity log include embedded links so, for example, simply clicking on a person's name in the log immediately displays the system's record for that person.

A wide variety of system events can be monitored, and system status can be seen at a glance in the *Auto Monitor* where you can find out more in *zero* clicks; just slide the mouse over an item to see the details of that item. For events that require acknowledgement by a user or for which there are detailed instructions, the system provides an event widget. With it, outstanding events are displayed and can be sorted, acknowledged, and details reviewed.



Floor plans with active graphic content, are standard in NetBox.

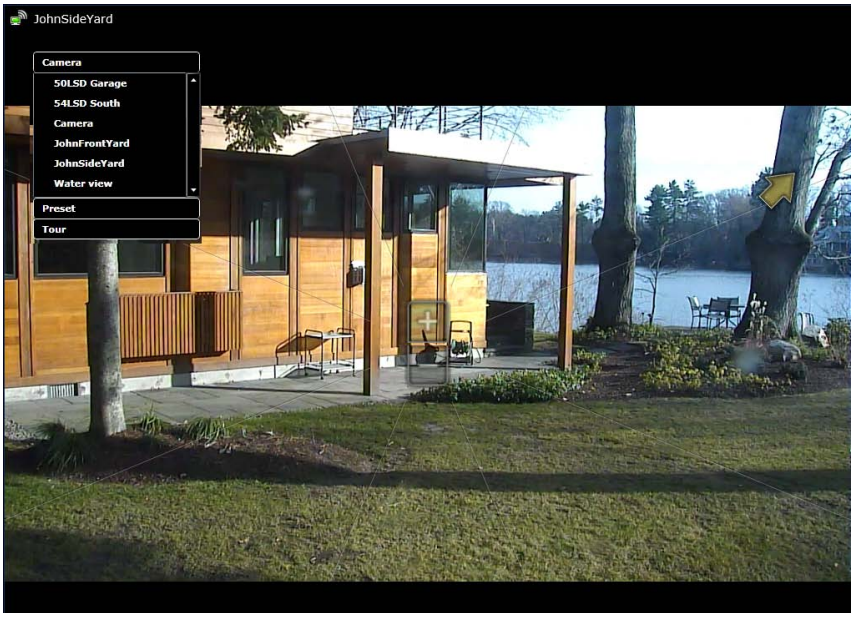
Integrated Video Surveillance

Real-time surveillance video is integrated on the Landing Page, the Monitoring Desktop, and any Widget Desktops programmed by the users of the system. On the landing page, you can display a single camera or multi-camera views. The video scales with the size of your browser window, and a single click toggles the between video-only and video-plus-data displays.

A sample Widget Desktop display showing a "1+7" video matrix, and an activity log. The overlaid video shows an instant replay of event-related video.

The Widget Desktop is the video surveillance center. The familiar drag-to-resize gestures expand or shrink the video display as desired. Video for current and recent alarms can be displayed with a single mouse click, right from the activity log. If you prefer, the system can pop-up a video display when an alarm occurs. In all views, real time pan, tilt, and zoom controls are provided on-screen for cameras that support them.

S2 NetBox offers the industry's widest range of choices for video integration for this class of product. If an application requires view-only video, then NetBox offers simple video surveillance *without additional hardware*. If your browser supports it, Axis and IQinvision camera displays use manufacturer-supplied controls for an enhanced viewing experience. Cameras for which support is not built into NetBox can be added through a command in the NetBox user interface that accepts the camera manufacturer's control strings.



Used during surveillance, video viewers let you select any camera, preset, or video tour as well as real time PTZ functions.

If your application requires recorded video, the S2 NetBox VR takes your video management system to a whole new level. Costing little more than a conventional network video recorder, the NetBox VR offers video management capabilities that are simply unavailable anywhere else.

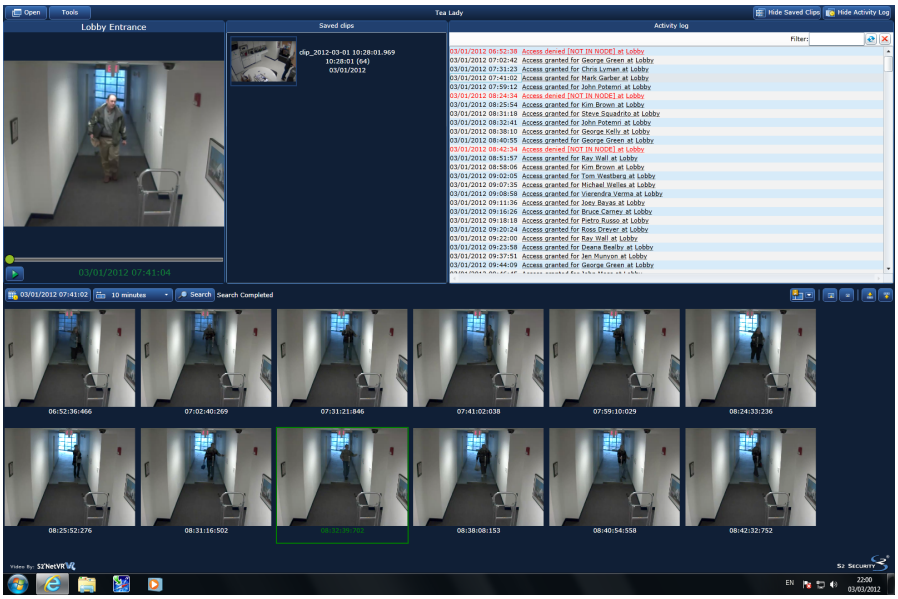
To begin with, all video is displayed in the web browser at frame rates typically seen only in installed-client applications. This means that you can see and browse video from anywhere that has permitted access to the network. Change camera views and presets, pan, tilt, and zoom them, and run video tours - all from the web browser.

The video surveillance experience is much more advanced in the NetBox VR. To move a camera, just hold the mouse button down until you see what you want. A superimposed arrowhead shows which way the camera is moving, and you can easily adjust the rate of camera movement by moving the mouse in or out from the center of the picture. The arrowhead gets larger or smaller to indicate the rate of motion selected. You can also position the camera with presets. They're very easy to define, and can be selected from the real time video display.

Video can be played back instantly by clicking an icon on the real time activity log. You can then easily step through, frame by frame, to see the exact event of interest.

Forensics: Powerful, Integrated, Easy

The S2 NetBox VR takes the view that video data isn't useful if you can't easily and quickly find the scenes you want after you've recorded them. With its advanced forensic search and case library, the NetBox VR goes way beyond conventional video surveillance products: it integrates the video record with the rest of your security system log. You get the text security system log, but now its enhanced by video.



The Forensic Desktop uses time, visual information, and the NetBox's activity log to locate video of interest incredibly quickly.

Using the rich capability of the Forensic Desktop feature, you can search stored video based on recorder concepts like date, time, and camera. Or, you can search based on integrated concepts like access control reader, alarm, or even a person's name. Every search provides a set of chronologically ordered thumbnails, each containing recorded video.

Once you have video thumbnails, you can play them, expand their timelines, step through them frame-by-frame, or save them as a video clip.

Performing a video search is really easy. If you know the approximate date and time of an event, you can enter it and start searching. If you've programmed video recording in response to an alarm event, you'll see an icon that you can click to see the recording.

But even if you haven't set up video events, the Forensic Desktop finds your video for you, on the fly. Simply click on the name of a person, place, or log message to create the thumbnails that match your search.

With NetBox VR's activity log view, it couldn't be easier to perform a search that would be complex or unavailable in another system. Just roll your mouse pointer over a field, click once, and your search begins. No search language to learn, no forms to fill. Its so simple, yet so powerful, that with the Forensic Desktop you'll get a lot more out of the video you capture because its so easy to find what you want.

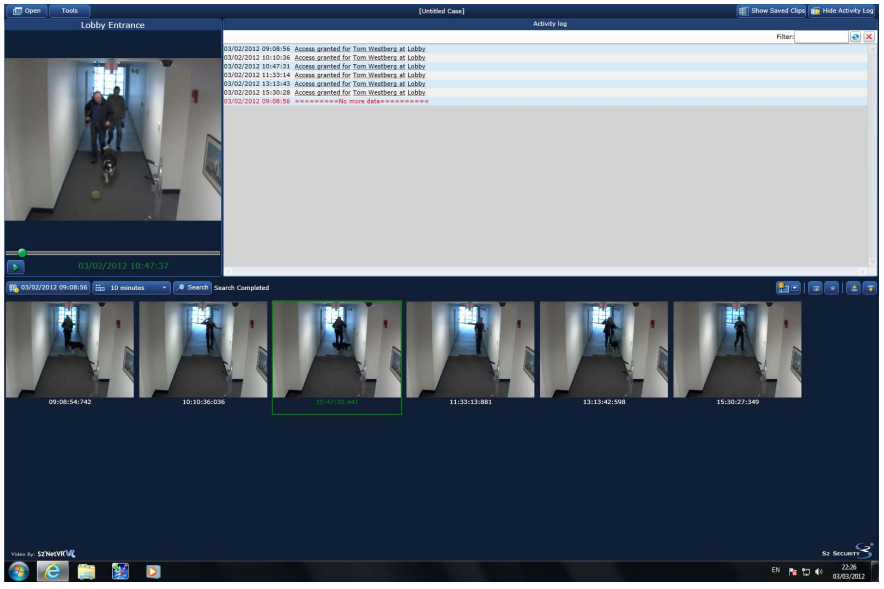
Forensic Case Library

Once you've located a video clip you're interested in, you can save it in the *forensic case library* for later use. Multiple clips related to the same investigation can be stored as a case for easy reference.

From the case library, you can print individual frames or export entire clips that can then be emailed or played on any computer. Printed frames include the metadata describing the frame, and any implied data such as the name of the person or portal to which the video is related.

You can add text notation to a clip when you add it to a case, and use searches to locate cases and clips later. Each case also contains a digital signature that creates a provable link between the external video and the NetBox VR that recorded it. Authenticating video this way is valuable in legal proceedings.

A clip view displays all the clips in a case and lets you easily locate the saved video you're looking for. The space in video storage taken up by cases is not reused until after you've safely archived them.



This access trace-by-name finds recorded video for each card access made with the credentials owned by a selected person.

NetBox / NetBox VR System Specifications

Access Control

Cardholders:	20,000
Online transactions	40,000,000
Available access levels	512
Available time specs	512
Unique user privileges	512
Simultaneous users	5
Readers (per enclosure)	14
Portals (nodes)	32 (32)
Max inputs/outputs	512/512

Minimum Client Requirements

Operating System	Windows XP, 7
Internet Explorer	Version 8, 9
Processor	Dual Core i5
RAM	8GB
Hard Drive	500GB
Screen Resolution	1600 x 1200
Silverlight	Version 4.0.60310.0

VMS (NetBoxVR)

IP Camera Streams:	Up to 16
IP Camera Resolution:	IP Camera Dependent
IP Camera Frame Rate:	IP Camera Dependent
Compression Type:	MJPEG, H.264

Platform (NetBox VR)

Storage Max (internal):	4.0TB
Processor:	Intel Atom D525 (Dual Core)
RAM:	2.0GB (Max 4.0GB)
OS:	Ubuntu Linux 10.04 LTS
Serial Ports:	2
NIC (10/100/1000):	1
USB (2.0):	4
VGA Output:	Yes
Keyboard and Mouse Ports:	Yes (USB)
Sustained Hard Drive Throughput:	18MB/second
Compatible Client OS:	Windows 32/64 bit
Certifications / Compliances:	CE, FCC
Warranty:	2 Years (hardware)
Dimensions (H, W, D):	3.5in (2U) x 17in x 14.58 (8.9cm x 43.2cm x 37.0cm)
Weight:	11lbs (5Kg)
Operation Temperature:	32° – 95° F (0° – 35° C)
Storage Temperature:	-4° – 158° F (-20° – 70° C)
AC Input:	85-260 VAC (Max 49 W)

Platform (NetBox)

Storage (internal):	4.0 GB
Processor:	Atom N2800
RAM:	2.0 GB
OS:	Ubuntu Linux 10.04 LTS
Serial Ports:	2
NIC (10/100/1000):	1
USB (2.0):	4
VGA Output:	Yes
Keyboard and Mouse Ports:	Yes (USB)
Sustained Hard Drive Thoughput	18MB/second
Compatible Client OS:	Windows 32/64 bit
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† Central station service is not provided by S2 Security and must be separately contracted.

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