n^x Witness VMS

HUNDREDS
OF SUPPORTED IP CAMERA BRANDS

THOUSANDS
OF CUSTOM SYSTEMS DEPLOYED

MILLIONS
OF VIDEO STREAMS MANAGED EVERY DAY

BILLIONS
OF EVENTS PROCESSED EVERY HOUR

Video Management. Made Simple.

Apps for Every Operating System. Cloud Enabled.
Nx Witness supports all major operating systems with the ability to link any system to Nx Cloud for fast, reliable remote access.

Automated. Intuitive. Built for Users.
Installs in seconds, configures in minutes.
Instantly usable for novices, operators, integrators, or developers.

Auto-Discover Devices from Hundreds of Manufacturers.
Discover and manage thousands of compatible video, audio and I/O devices.
Set up a new system or replace any existing VMS in minutes.
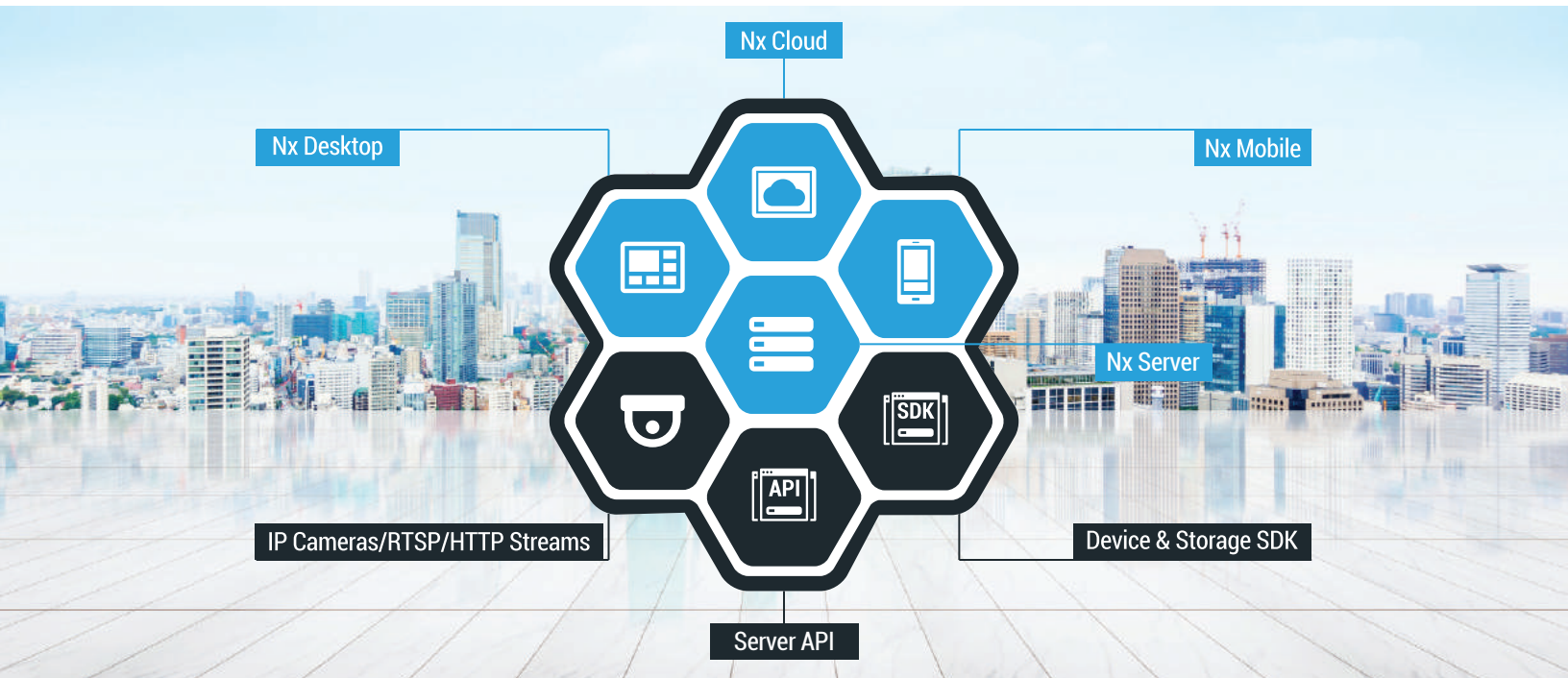
Open for Developers. Integrate Anything.
With an open Restful API, a suite of SDK's, and integrator-friendly tools like a built-in API generator Nx Witness users can quickly integrate any 3rd party device or system.

Nx Witness VMS

Open Video Platform.

Simple. Reliable. Customizable.

Nx Witness is an endlessly customizable IP Video Management platform that gives users the ability to create tailored networked video solutions for any type of project, for use by anyone, on any device.

Nx Cloud

Nx Desktop

Nx Mobile

Nx Server

IP Cameras/RTSP/HTTP Streams

Device & Storage SDK

Server API

You choose your devices.

Nx Witness has applications for all major operating systems so our users are not limited by what device or operating system they choose to use on their desktops, mobile devices, rack mount servers, or even low-powered embedded devices.

Cloud	Desktop	Mobile	Server
A cloud-based service that enables simple, centralized remote access and insight into any Nx Witness system.	A rich media player designed to view and manage a single Nx Witness system from a desktop or laptop PC.	A mobile app designed for viewing Nx Witness system video and events while on-the-go.	A media server responsible for discovering, connecting to, and managing system devices and data.
SUPPORTED BROWSERS:	**DESKTOP OS SUPPORT:**	**MOBILE OS SUPPORT:**	**SERVER OS SUPPORT:**
Google Chrome	Microsoft Windows	Google Android	Microsoft Windows
Mozilla Firefox	Ubuntu Linux	Apple iOS	Ubuntu Linux
Opera / Opera Neon	Apple / Mac OSX		ARM Devices
Microsoft Edge			
Apple Safari			

networkoptix

http://networkoptix.com

Nx Witness - Open Video Platform

Nx Cloud Simplifies Everything.

The Nx Witness Cloud service makes connecting to and managing Nx Witness System(s) simple.
Set up in Seconds. Connect from anywhere. Share with an unlimited number of Users.
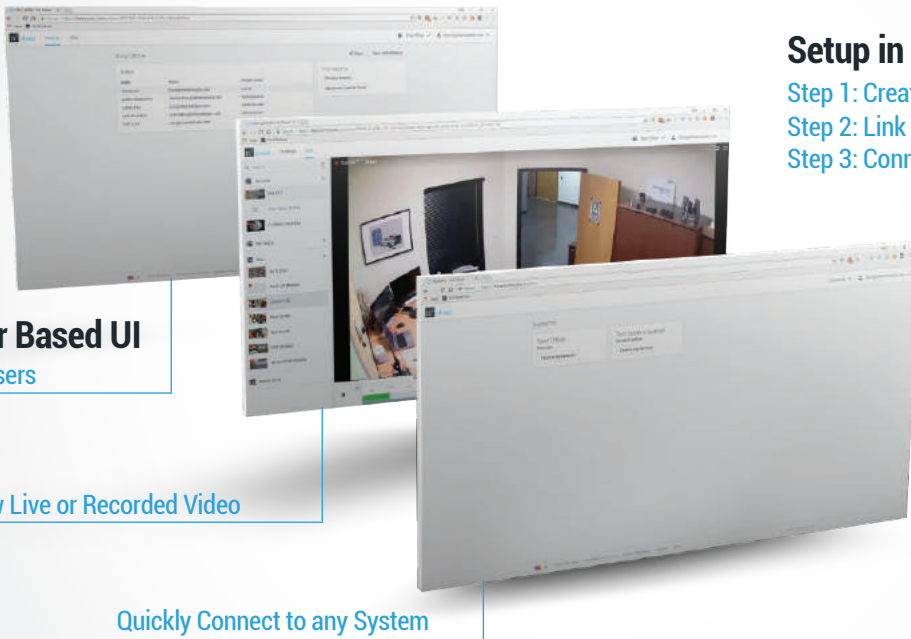
Setup in Seconds

Step 1: Create an Nx Cloud Account
Step 2: Link your System to Nx Cloud
Step 3: Connect, View, and Manage from anywhere.

Browser Based UI

Manage Users

View Live or Recorded Video

Quickly Connect to any System

powered by
amazon
web services

Connect. View. Manage. Scale.

Nx Cloud is a public cloud application hosted on Amazon AWS that enables simple remote connectivity, streaming, and management of one or an unlimited number of Nx Witness Systems.

SUPPORTED BROWSERS: Google Chrome   Mozilla Firefox   Opera / Opera Neon   Microsoft Edge   Apple Safari

CONNECT	VIEW	MANAGE	SCALABILITY / INTEGRATION
NAT Traversal	Live Video (adaptive)	System Settings	Unlimited# of Systems
Data Proxy via AWS	Recorded Video (adaptive)	User Permissions	Unlimited # of Users
Simple Credentials	Camera Details	Cloud Connections	Unlimited # of Devices
Encrypted Communications	Keyword Search	Email Notifications	Cloud API
Wifi / LAN / WAN	Calendar Search		
4G / LTE / Data	Flex Timeline		

Witness VMS

Cloud

SCALABILITY

# OF CONNECTED SYSTEMS: UNLIMITED	
# OF USERS: UNLIMITED	

NX CLOUD SERVICES

CLOUD CONNECT

Connect any Nx Witness System to Nx Cloud for simple remote connectivity from anywhere using Network Optix's NAT Traversal and Cloud Data Proxy technology.

USER MANAGEMENT

Add an **unlimited number** of users to a single Nx Cloud System.

Share access to your Nx Witness System in seconds using only email addresses.

Create **Custom Roles** to quickly assign access to multiple Nx Cloud connected Systems.

HOW IT WORKS
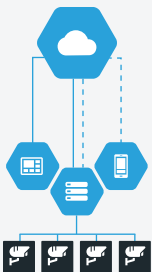
Nx Witness applications (Nx Server, Nx Desktop, Nx Mobile) connect via an active Internet connection to the Nx Cloud service and are automatically connected together using a combination of NAT Traversal (direct connection) and data proxy (connected via Nx Cloud) technologies.

NX CLOUD BROWSER & DEVICES INTERFACE

NX CLOUD FEATURES

CONNECTIVITY

NAT TRAVERSAL:	CONNECT DIRECTLY TO PROXIED NX WITNESS SERVERS
CLOUD DATA PROXY:	CONNECT VIA AWS CLOUD PROXY SERVICE

INTERFACE TABS

SYSTEMS:	VIEW CONNECTED SYSTEM TILES
SETTINGS:	VIEW USERS RENAME SYSTEM DISCONNECT SYSTEM
VIEW:	USE NX CLOUD CLIENT TO VIEW LIVE OR RECORDED VIDEO

SECURITY

SECURE PASSWORD RECOVERY:	VIA EMAIL
HTTPS:	OPENSSL ENCRYPTED SERVER/CLIENT/CLOUD CONNECTIONS
EMAIL:	TLS (TRANSPORT LAYER SECURITY)
PASSWORDS:	COMPLEX MULTI-LEVEL HASH

DEVELOPER TOOLS

CLOUD API:	AVAILABLE UPON REQUEST

"The way all video software interfaces should look and operate."

A rich media player with a flexible GRID interface, unmatched speed and responsiveness, instant event notifications, an embedded browser, and a user experience unlike any other video management software.

One App. Many Features.

Nx Witness Desktop combines performance, ease-of-use, and a 'let the user decide how best to use the software' approach into a single cross-platform lightweight app capable of running on everything from Atom based tablets to Xeon based servers.

SUPPORTED OPERATING SYSTEMS: Microsoft Windows   Ubuntu Linux   Apple / Mac OSX

USABILITY	MEDIA	CONFIGURATION	SEARCH
Drag & Drop Everything	IP Cameras / Encoders/ DVRs	Events & Rules Engine	Smart Motion Search
Consolidated Notifications	RTSP/HTTP Streams	User Management	Keyword Search
Flex Timeline	I/O Devices	IP Cameras / Encoders	Calendar Search
Customizable Layouts	Web Pages	Server Management	Time-Slice Search
Digital Maps	Videos	I/O Device Management	Bookmarks
Adaptive Scaling	Images	Storage Management	Audit Trail

n^x Witness VMS

Desktop

MAXIMUM # OF GRID ITEMS

64 BIT OS: 64 Items (e.g. 64 live streams)

32 BIT OS: 24 Items (e.g. 24 live streams)

SUPPORTED OPERATING SYSTEMS

WINDOWS

Windows 7
Windows 8
Windows 8.1
Windows 10
Windows Server 2008
Windows Server 2008 R2
Windows Server 2012
Windows Server 2012 R2
Windows 10 Enterprise

LINUX

Ubuntu Linux 14.04 LTS
Ubuntu Linux 16.04 LTS
* Additional possible

MAC

OSX 10.11
OSX 10.12

HARDWARE REQUIREMENTS

MINIMUM SUPPORTED SPECS

HARD DRIVE: HDD/SSD/mSATA
RAM: 2GB
CPU: Quad Core Intel Celeron CPU or higher
GRAPHICS: Intel HD Graphics 3000
          w/ OpenGL2.1 support
NETWORKING: 1GB NIC

PERFORMANCE SPECS

HARD DRIVE: Performance SSD
RAM: 16 GB RAM
CPU: Intel Core i5
GRAPHICS: NVIDIA GeForce GTX 1050
          (OpenGL2.1 support is required)
NETWORKING: 10 GB NIC

NX DESKTOP APPLICATION

SUPPORTED MEDIA PLAYBACK ON GRID

LIVE STREAMS

CODECS: H.265 H.264 MJPEG

OFFLINE MEDIA

VIDEOS: AVI MKV MP4 MOV TS M2TS MPEG MPG FLV WMV 3GP

IMAGES: JPG PNG GIF BMP TIFF

CONNECTED DEVICES

I/O DEVICES: Status and Triggers

SERVERS: Server Health Monitoring

BROWSER

WEB PAGES: Responsive Websites / Progressive Web Apps

VIEWING MODES

MEDIA PLAYER: View, edit, and export offline videos and images

CONNECTED: View, configure, and manage any Nx Witness System

VIDEOWALL: Put Nx Desktop into VideoWall mode to control remotely

SHOWREEL: Fully customizable timed viewing tour of any GRID media

Mobile

Smart Phone. Smart Video.

Nx Mobile for iOS and Android smartphones and tablets provides fast, dependable mobile access to any Nx Witness System.
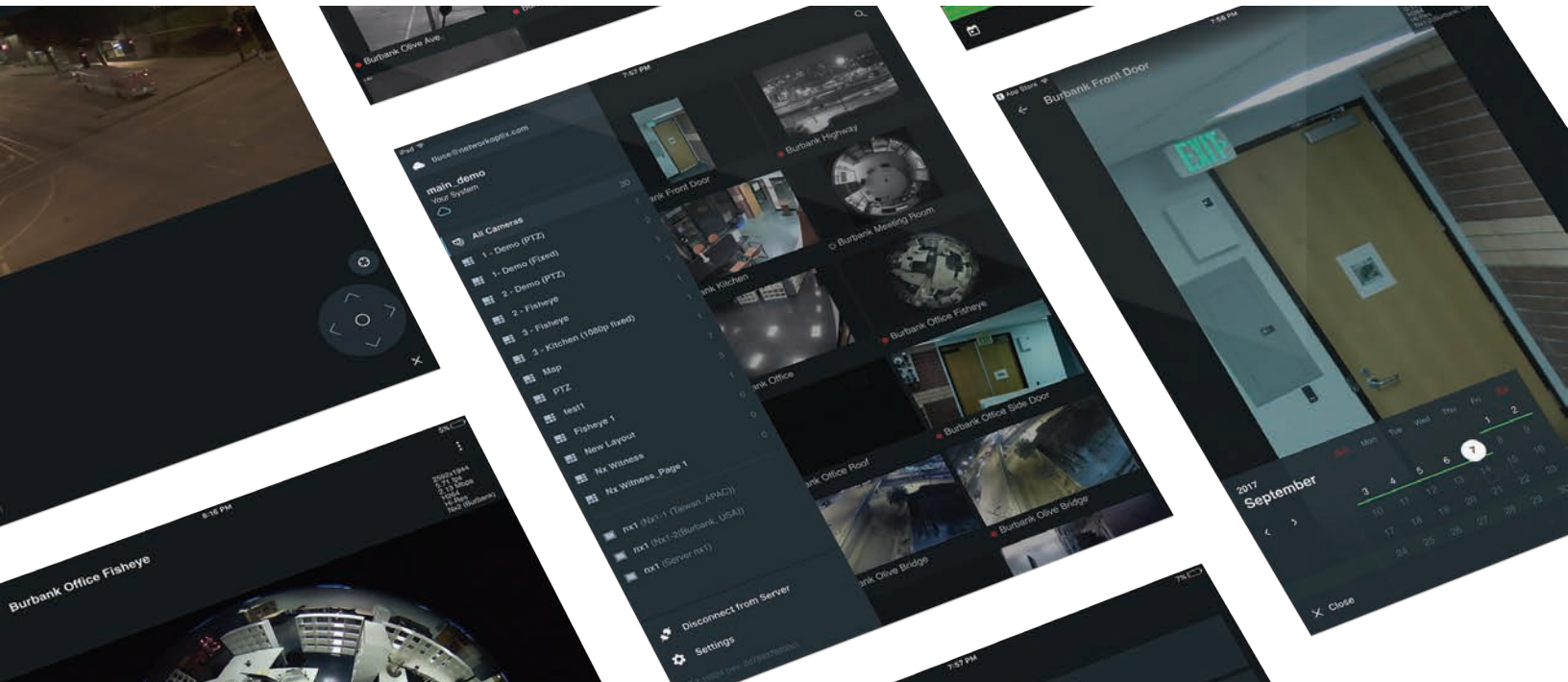
Connect. View. Search. Control.

Nx Witness Mobile - with a custom developed media player - is a low-latency, user-friendly mobile application for iOS and Android devices that allows users to connect to, view, search, and control IP cameras over Wifi or Data networks.

SUPPORTED OPERATING SYSTEMS: Google Android   Apple iOS

CONNECT	VIEW	SEARCH	CONTROL
Wifi	Live Video (adaptive)	Keyword	Nx1 Lite Client
Data 4G/LTE	Recorded Video (adaptive)	Calendar	Advanced PTZ / Standard PTZ
	Layouts	Flex Timeline	Fisheye Dewarping (soon)
	Available Systems		2 Way Audio (soon)

Download on the App Store

GET IT ON Google Play

n^x Witness VMS

Mobile

COMPATIBLE DEVICES

SMART PHONES: 64 Items (e.g. 64 live streams)

iOS 24 Items (e.g. 24 live streams)
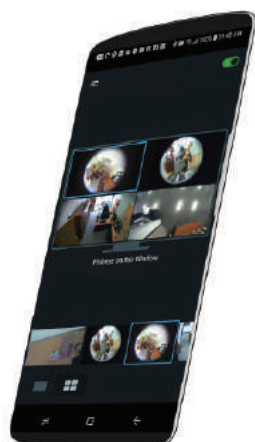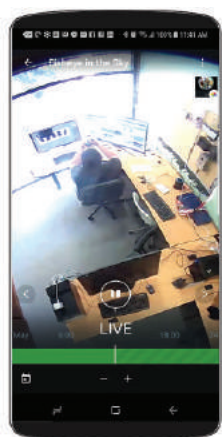
SUPPORTED OPERATING SYSTEMS

ANDROID

Jelly Bean	4.1 - 4.3.1
Kit-Kat	4.4 - 4.4.4
Lollipop	5.0 - 5.1.1
Marshmallow	6.0 - 6.0.1
Nougat	7.0 - 7.1.2
Oreo	8.0

iOS

iOS 5	5-0 - 5.1.1
iOS 6	6.0 - 6.1.6
iOS 7	7.0 - 7.1.2
iOS 8	8.0 - 8.4.2
iOS 9	9.0 - 9.3.5
iOS 10	10.0 - 10.3.3
iOS 11	11.0

GET IT ON Google Play

Download on the App Store

NX MOBILE

SUPPORTED MEDIA PLAYBACK

STREAMS

CODECS: H.265   H.264   HLS

FEATURES

REMOTE CONNECT: Login using local or Nx Cloud credentials

LIVE THUMBNAILS: Thumbnails refresh in real time

KEYWORD SEARCH: Search for cameras or layouts by name

CALENDAR SEARCH: Search by date and time

ADVANCED PTZ: Point Pan, Zoom, Tilt Controls

FISHEYE DEWARPING: Dewarp fisheye images

ADAPTIVE SCALING: Hi / Low Resolution Switching   Transcoding

LAYOUTS: View thumbnails of System Layouts

Nx1 LITE CLIENT CONTROL: Remote control of Nx1 Lite Client

QUICK SYSTEM SWITCH: Quickly switch between multiple Nx Witness Systems

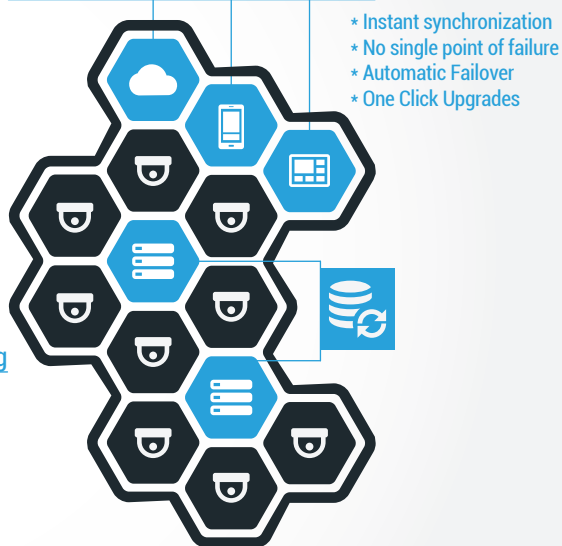# nˣ Witness VMS

Server

Lighweight. Powerful. Server Hive.

The Nx Server application is the foundation of the entire platform - with the ability to operate alone or as one part of a hive.

BROWSER UI

View Live or Recorded Video

Real Time Health Monitoring

Built-in SDK and API Docs

SERVER HIVE
Connect to any Server w/ any Client

* Instant synchronization
* No single point of failure
* Automatic Failover
* One Click Upgrades

Discover. Manage. View. Integrate.

The Nx Server application is a lightweight, powerful media server responsible for discovering, connecting to, and managing Nx Witness system devices and data.

SUPPORTED OPERATING SYSTEMS: ⊞ Microsoft Windows   ○ Ubuntu Linux   ARM Devices

DISCOVER	MANAGE	VIEW	INTEGRATE
IP Cameras (ONVIF, Custom)	IP Cameras / NVRs / DVRs	Live Video (adaptive)	HTTP Generic Events
RTSP/HTTP Streams	Advanced Routing	Recorded Video (adaptive)	HTTP Request-as-an-Action
I/O Devices	Storage (HDD/NAS/DAS)	Server Health	Server API
3rd Party DVR / NVRs	Events & Rules Engine	Log Files	Storage SDK
Nx Servers / Systems	Failover	Audit Trail	Video Source SDK
Samba NAS	Transcoding	Storage Status	Any Device or System

n^x Witness VMS

Server

SCALABILITY

 # OF CLIENTS PER SERVER: THOUSANDS

 # OF CLIENTS PER SYSTEM: UNLIMITED

 # OF STREAMS PER SERVER: 128

 # OF SERVERS IN A SERVER HIVE: 50 *

** 50 is a recommended maximum.
Contact support for more info.*

SUPPORTED OPERATING SYSTEMS

WINDOWS

Windows 7
Windows 8
Windows 8.1
Windows 10
Windows Server 2008
Windows Server 2008 R2
Windows Server 2012
Windows Server 2012 R2
Windows 10 Enterprise

LINUX

Ubuntu Linux 14.04 LTS
Ubuntu Linux 16.04 LTS
*contact support for others

ARM

Raspbian
Bananian
*contact support for others

HARDWARE RECOMMENDATIONS

RECOMMENDED BASED ON # OF STREAMS

STREAMS	RAM	NIC	CPU
Up to 8	1 GB	1 GB	Dual Core ARM
Up to 16	2 GB	1 GB	Dual Core Atom
Up to 32	4 GB	1 GB	Quad Core Atom
Up to 64	8 GB	1 GB	Core i3
Up to 128	16 GB	1 GB	Core i3

** CPUs change fast.
And this spec sheet is fixed.*

NX SERVER WEB ADMIN

SUPPORTED MEDIA STREAMING

LIVE STREAMS (Viewed in Nx Desktop)

VIDEO: H.265 H.264 MJPEG

AUDIO: AAC PCM (Mu-Law, A-law) g726 MP3

LIVE STREAMS (Available to pull from Nx Server to 3rd Party)

VIDEO: H.265 H.264 MJPEG WebM

AUDIO: AAC PCM (Mu-Law, A-law) g726 MP3

PROTOCOLS: RTSP MJPEG WebM HLS

OTHER

AUTOMATIC CAMERA FAILOVER: ~1 MIN. CONFIGURABLE.

TRANSCODING: SUPPORTED (FOR WEB CLIENT, MOBILE, API)

DATABASE: SQLITE + PROPRIETARY ARCHIVE INDEX

SINGLE SIGN ON: LDAP / ACTIVE DIRECTORY

SECURITY: OPEN SSL SALTED MD5 HASH TLS/SSL HTTPS

DEV TOOLS: SERVER API (HTTP) VIDEO SOURCE SDK STORAGE SDK

NAS: SAMBA (AUTHENTICATED, UNAUTHENTICATED)