WISENET

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Hanwha Techwin

WISENET

INTUITIVE SOFTWARE

WISENET Wave

CYBER ESSENTIALS

WINNER
Video Surveillance (Hardware)
Hanwha Techwin
Wisenet X

Hanwha Techwin

CLOUD

Wisenet WAVE SYNC Simplifies Everything.

A cloud-based service which can be remotely accessed by an unlimited number of authorised users from anywhere in the world.

Setup in Seconds

Step 1: Create Wisenet WAVE SYNC Account

Step 2: Link your System to Wisenet WAVE SYNC

Step 3: Connect, View, and Manage from anywhere.

Connect. View. Manage. Scale.

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

Supported Operating Systems: Google Chrome, Mozilla Firefox, Opera / Opera Neon, Microsoft Edge, Apple Safari

View	Manage	Scalability / Integration
Live Video (adaptive)	System Settings	Unlimited# of Systems
Recorded Video (adaptive)	User Permissions	Unlimited # of Users
Camera Details	Cloud Connections	Unlimited # of Devices
Keyword Search	Email Notifications	Cloud API
Calendar Search		
Flex Timeline		

WISENET WAVE SYNC BROWSER & DEVICES INTERFACE

Cloud Systems

Cloud Connect	Connect any Wisenet WAVE System for simple remote connectivity from anywhere using NAT Traversal and Cloud Data Proxy technology.
User Management	Add an unlimited number of users to a single Wisenet WAVE SYNC System. Share access to your Wisenet WAVE system in seconds using only email addresses. Create Custom Roles to quickly assign access to multiple Wisenet WAVE SYNC connected Systems.
How it works	Wisenet WAVE applications (Server, Desktop, Mobile) connect via an active internet connection to the Wisenet WAVE SYNC (Cloud) and are automatically connected together using a combination of NAT Traversal (direct connection) and data proxy technologies (connected via Wisenet WAVE SYNC).

Wisenet WAVE Cloud Features	
Connectivity	Nat Traversal: Connect Directly To Proxied Wisenet WAVE 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 Wisenet WAVE SYNC Client To View Live Or Recorded Video
Security	
Secure Password Recovery:	Via Email
HTTPS:	Open SSL Encrypted Server/Client/Cloud Connections
Email:	TLS (Transport Layer Security)
Passwords:	Complex Multi-Level Hash
Developer Tools	
Cloud API	Available Upon Request
Scalability	
# Of Connected Systems	Unlimited
# Of Users	Unlimited

DESKTOP

The ultimate flexibility.

Wisenet WAVE offers a wide range of options to allow users to choose how and where they wish to manage their video surveillance systems with minimal hardware requirements.

Wisenet WAVE is offered as software which can be installed onto a user's desktop running Windows, Linux or Apple/Mac. 24 to 64 live high definition video streams can be managed on 32 and 64-bit.

One App. Many Features.

Wisenet WAVE 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

DESKTOP APPLICATION

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
Mac	OSX 10.11 OSX 10.12

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 Wisenet WAVE system
Videowall	Put Desktop into VideoWall mode to control remotely
Showreel	Fully customisable timed viewing tour of any GRID media
Maximum # Of Grid Items	
64 Bit OS	64 Items (e.g. 64 live streams)
32 Bit OS	24 Items (e.g. 24 live streams)
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

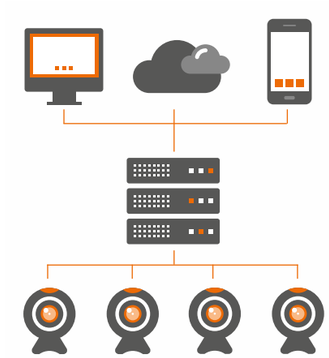
SERVER

Lightweight. Powerful. Server Hive.

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

Wisenet WAVE is available as a downloadable software application from the Hanwha Techwin website which enables operators to view up to 64 high definition streams of live video.

The supporting web-based application enables each Wisenet WAVE platform to be managed as a stand alone system or as part of a larger, scalable video management solution. The application also provides an audit trail, real-time health monitoring and camera failover support, as well as reports on server health and storage status.



Server Hive

Connect to any Server w/ any Client

- Instant synchronisation
- No single point of failure
- Automatic Failover
- One Click Upgrades

Discover. Manage. View. Integrate.

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

Supported Operating Systems: Microsoft Windows Ubuntu Linux

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
Servers / Systems	Failover	Audit Trail	Video Source SDK
SAMBA NAS	Transcoding	Storage Status	Any Device or System

SERVER WEB ADMIN

Supported Operating Systems

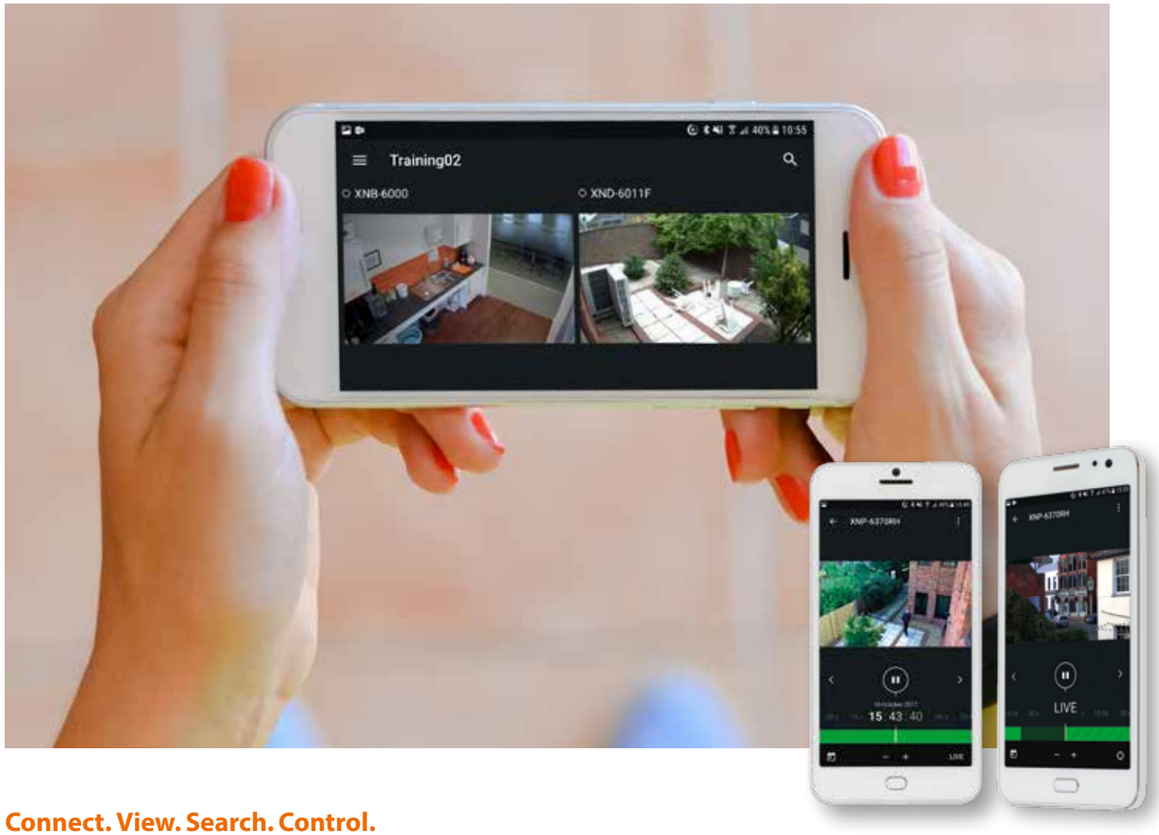
Windows	Windows 7 Windows 8 Windows 8.1 Windows 10 Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows 10 Enterprise
Linux	Ubuntu Linux 14.04 LTS Ubuntu Linux 16.04 LTS

Supported Media Streaming	
Live Streams (Viewed on Desktop)	Video: H.265 H.264 MJPEG
	Audio: AAC PCM (Mu-Law, A-law) g726 MP3
Live Streams (Available to pull from 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)
Scalability	
# Of Clients Per Server:	Thousands
# Of Clients Per System:	Unlimited
# Of Streams Per Server:	128
# Of Servers In A Server Hite	50 (50 is a recommended maximum. Contact support for more info).
Hardware Recommendations	
Recommended based on # of streams	Streams / RAM / NIC / CPU* Up to 8 / 1 GB / 1 GB / Dual Core Atom Up to 16 / 2 GB / 1 GB / Dual Core Atom Up to 32 / 4 GB / 1 GB / Dual Core Atom Up to 64 / 8 GB / 1 GB / Core i3 Up to 128 / 16 GB / 1 GB / Core i3 *CPUs data correct at time of print.

MOBILE

Smart Phone. Smart Video.

A mobile app provides the opportunity to remotely access the key functions of Wisenet WAVE from a smart device to enable 'on-the-road' users to view and respond to any incidents captured by Wisenet cameras.



Connect. View. Search. Control.

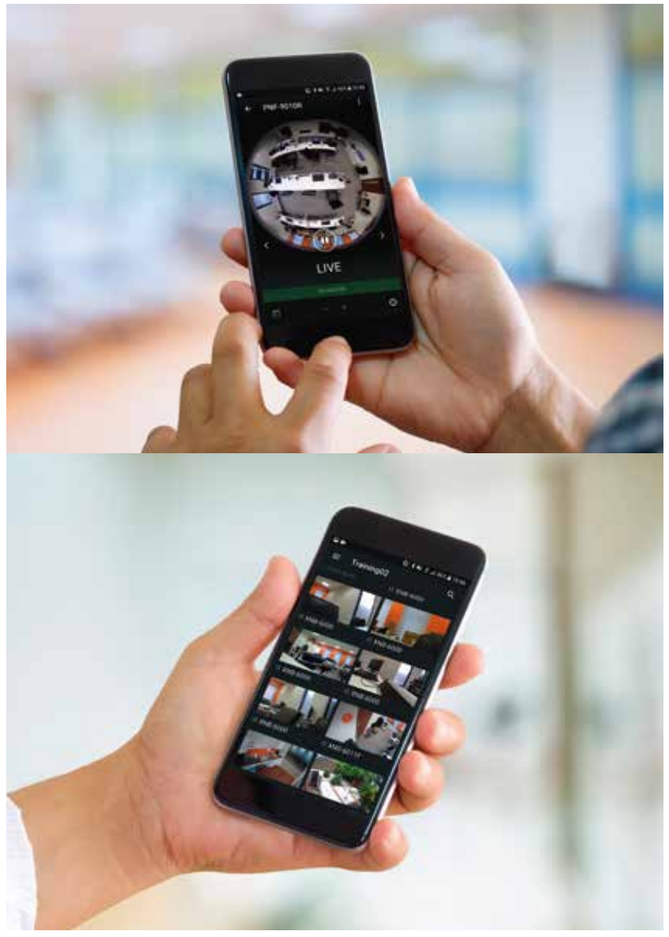
Wisenet WAVE Mobile - with a custom developed media player - is a low-latency, user-friendly mobile application for iOS and Android devices that allows users to connect to, view, search, and control IP cameras over Wifi or Data networks.

Supported Operating Systems: Google Android Apple iOS

Connect	View	Search	Control
Wifi	Live Video (adaptive)	Keyword	Advanced PTZ / Standard PTZ
Data 4G/LTE	Recorded Video (adaptive)	Calendar	Fisheye Dewarping (soon)
	Layouts	Flex Timeline	2 Way Audio (soon)
	Available Systems		

Download on the App Store GET IT ON Google Play

MOBILE



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
Apple	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

Compatible Devices

Smart Phones	64 Items (e.g. 64 Live Streams)
iOS	24 Items (e.g. 24 Live Streams)

Download on the App Store GET IT ON Google Play

Supported Media Playback	
Streams	Codecs: H.265 H.264 HLS
Features	
Remote Connect	Login using local or Wisenet WAVE SYNC 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
Quick System Switch	Quickly switch between multiple Wisenet WAVE systems