

Title:	Firmware Release Notes	Version:	v3.4.3	Date:	10/26/16
Product:	DS-90xx-ST Series DVR, DS-96xx-ST Series NVR, DS-7716NI-SP NVR	Build:		Page:	1 of 8
Action Required:	None, Information Only				

Summary

- Compatible IP Camera Information**

IP Camera Model	IP Camera Firmware
2xx2 Series	v5.3.0_151016
40xx, 41xx, 42xx, 43xx, 6412FWD Series	v5.3.4_150812
1x02, 2xx0, 2x14 Series	v5.3.0_151016
4026FWD, 6026FHWD, iDS-6xxx Series	v5.3.4_150812
4xx5 Series	v5.3.4_150812
2x22FWD, 2x42FWD Series	v5.3.6_151105
IPD DF Series	v5.3.10_150917
IPD DF Series	v5.3.2_150519
IPD DE Series	v5.3.9_150910
DS-2CD2942F-IS (Fisheye)	v5.3.3_151016
DS-2CD6412FWD-C2	v5.1.7_140904
DS-2CD63xxF (Fisheye)	v5.0.9_141009

- Firmware v3.4.3 160822 Changes**

Added	Adds pattern security feature
	Adds e-mail support TLS 1.0 feature
	Adds VCA trigger PTZ preset feature
	Adds support fisheye heat map feature
Changed	Upgrades SSL encryption to 2048-bit
	Changed the boot up screen picture from “net DVR” to “NVR”
Removed	Removed the display about estimated recording time with current storage
Fixed Bugs	Fixed the issue that displayed black image when zoomed in on image in the playback interface
	Fixed the issue that Video Loss sound/e-mails cannot be turned off when the camera is off line (this can be configured only in the NVR's local GUI)
	Fixed the issue that the NVR might show the IP address of an added IP camera in the camera management interface if the IP camera has two IP addresses
	Fixed TOE related issues that the NVR might restart abnormally if a remote Web client connects to the NVR frequently
	Fixed the issue that a device notifies the surveillance center beyond the arming schedule
Remaining Bugs To Be Fixed	The NVR fails to get the PTZ information from the IPD
	There is no remote login log when user logs in to NVR/DVR from Web browser

Title:	Firmware Release Notes	Version:	v3.4.3	Date:	10/26/16
Product:	DS-90xx-ST Series DVR, DS-96xx-ST Series NVR, DS-7716NI-SP NVR	Build:		Page:	2 of 8
Action Required:	None, Information Only				

- Firmware v3.4.2.1 Changes**

Added	Added e-mail support for the TLS 1.0 feature
-------	--

- Firmware v3.4.2 Changes**

Changed	Changed the boot up screen picture from “Copying” to “Copyright”
Bug Fixes	Fixed the bug that the device can’t detect a Mac Web plugin
	Fixed the Web component for the Windows security issue

- Firmware v3.4.1 Changes**

IP Channel Password Management	Supports the IP channel’s password synchronization function that an NVR will synchronize the admin’s password to HIKVISION IP cameras connecting with the NVR when the admin’s password is modified by the user (except EZVIZ cameras)
Supports H265 Decoding Format	Supports H.265 decoding format, including stream receive, storage, remote viewing, and remote playback, but doesn’t support local viewing, digital zoom, local playback, or PTZ live view.
Password Reset Optimization	Increased the length of device code to guarantee password reset security Supports exporting the xml file by scanning the QR code on SADP Tool
IVMS-4500 Smart Notification	Supports uploading Smart event notification to IVMS-4500
Ezviz	Supports PTZ control
	Added offline log
Reliable Transmission	Added SDK HRUDP protocol for remote view to support reliable transmission based on UDP
	Supports bitrate and bandwidth self-adaption for the network environment with high bandwidth fluctuates to guarantee the fluency of live view (this function may modify the IPC bitrate)
Optimize ONVIF Protocol Compatibility of Function	NVR can get stream from IPC with ONVIF even if NVR fails to get the IPC compression parameters, NVR uses the default compression parameters instead
	Increased the compatibility of ONVIF protocol
	NVR can get the language of IPC accessed through ONVIF. Only HIKVISION products support this function.
	Optimized preset point function to guarantee the preset point order is correct
NVR SDK Module	Added transparent transmission SDK interface that NVR can transmit configuration parameters to IPC transparently
SDK Passenger Flows and Heat Map Data Real-Time Uploading	After 5200 software accesses NVR and arms, NVR will upload real-time passenger flows and heat map data to 5200 to display
SDK Overtime Is Configurable	SDK overtime is configurable
ISAPI Alarm Notification	NVR doesn’t support “/ISAPI/event/notification/alertStream” function in older version when third-party device is integrated, new version enables “/ISAPI/event/notification/alertStream”, users could receive event notification (only effective for third party IPC)

Title:	Firmware Release Notes	Version:	v3.4.3	Date:	10/26/16
Product:	DS-90xx-ST Series DVR, DS-96xx-ST Series NVR, DS-7716NI-SP NVR	Build:		Page:	3 of 8
Action Required:	None, Information Only				

- Firmware v3.4.1 Changes** (continued)

Security	Exported configuration files encryption
	User name and password encrypted before saving in configuration files
	Encrypted SDK's sensitive information channel
New Serial Port Command	Added a new serial port command to show the resolution the device supports (showDevCapa)
Debug Commands of System Level	Developed a new serial port command debugging system
	The new format of command: dt+ (space) command
	Former command such as getlp could be input in 2 ways: dt getlp or getlp
System Crash Log	System crash information could be recorded in system log (just for Netra NVR)
Remote Debugging Service	Added Remote Debugging Service (Debug Tool)
IP Channel Management	When IPC is plugged to PoE interface, the state shown in NVR is detecting
	When the IPC language is unmatched with the NVR, the state of the IP channel will be language unmatched instead of a hint
IPC Access	Optimized the event arming mechanism to fix the issue that NVR doesn't receive any event alarm if one of events configuration fails
Motion Detection	Limits the configuration of motion detection sensitivity, the sensitivity can't be adjusted to 0. Added a new option: Enable dynamic analysis.
GUI	Optimized caps-lock on soft keyboard
User Lock	Optimized user lock
	The login failure attempts number could be restored if the time between two failure attempts is longer than failure attempt number restoring time
	User's login attempts will not affect the lock time left
Live View Strategy	In multi-screen mode, NVR will automatically switch to sub-stream for live view if the channel's resolution is higher than 2 MP
Change	Renamed "People Counting" to "Counting"
Change	Supports multi-language (English, French, Spanish)
Changed	EZVIZ device will not be discovered
Bug Fixed	Video expiration time can't be configured in v3.3.4
Bug Fixed	No output in SPOT ports of Netra XT devices
Bug Fixed	Dynamic analysis for motion not working on the live view
Bug Fixed	If the IP address of NVR is modified when event occurs, NVR can't receive event message from IPC afterwards
Bug Fixed	When upgrading, -RT, -RT will be changed into -XT; there is no hardware RAID feature

- Firmware v3.3.7 Changes**

Bug Fixed	No Recording issue
-----------	--------------------

- Firmware v3.3.6 Changes**

Change	Encrypted SDK's sensitive information channel
Bug Fixed	Failed Event Recording
Bug Fixed	"Flickering" on HDMI monitor when analog monitor auto switches

Title:	Firmware Release Notes	Version:	v3.4.3	Date:	10/26/16
Product:	DS-90xx-ST Series DVR, DS-96xx-ST Series NVR, DS-7716NI-SP NVR	Build:		Page:	4 of 8
Action Required:	None, Information Only				

- **Firmware v3.3.5 Changes**

- VGA default resolution set to 720p
- Enabled VGA/HDMI Synchronous Output by default
- Supports R6 platform IPC
- Operation of IPC motorized lens is supported
- DS-90xxHWI-ST “Analog Main Stream Is Static” issue fixed
- VCA e-mail will have attachment
- Audio exception issue has been fixed
- No Resource issue has been fixed
- Optimized the event arming mechanism to fix the issue that NVR doesn't receive any event alarm if one of events configuration fails
- Live view fails with remote when using some Anti-Virus SW issue have been fixed
- Using line crossing as the VCA E-MAIL name instead of traverse plane
- E-mail sending failure with Yahoo mailbox issue has been fixed

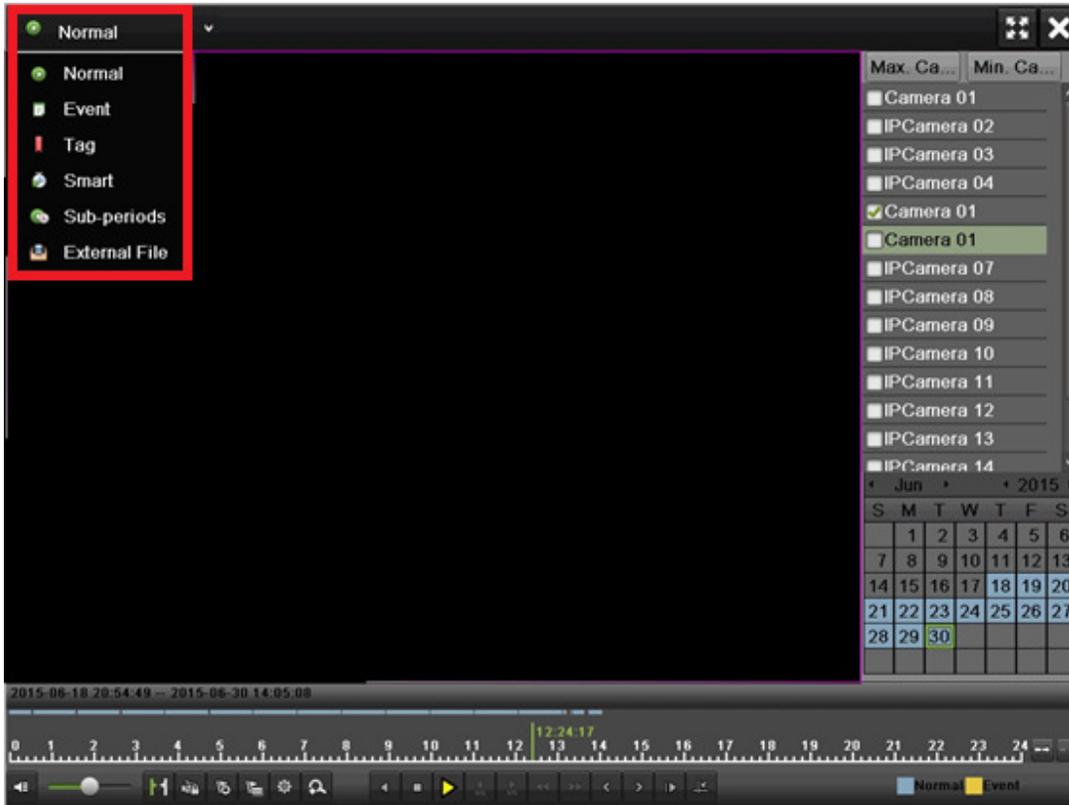
- **Firmware v3.3.4 Changes**

- Fixed bug that IE DDNS setting was not synchronized to local GUI
- Fixed reboot bug that triggered “notifying surveillance center” when alarm input was on
- Fixed bug that Web server can be triggered to reveal the absolute path for the Web root directory and/or other software installed on the host

- **Firmware v3.3.2 Changes**

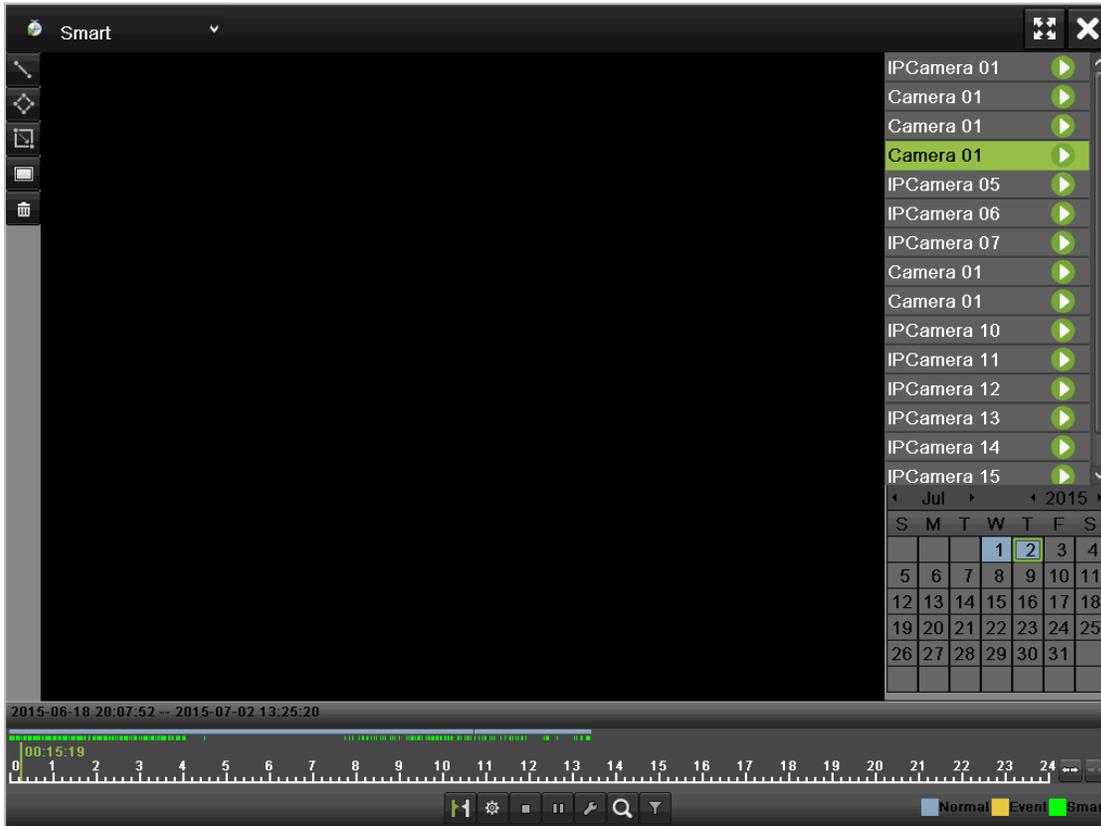
- Removed small screen playback
- Separated Smart Playback and Normal Playback

Title:	Firmware Release Notes	Version:	v3.4.3	Date:	10/26/16
Product:	DS-90xx-ST Series DVR, DS-96xx-ST Series NVR, DS-7716NI-SP NVR	Build:		Page:	5 of 8
Action Required:	None, Information Only				



- Smart search available only in “Smart Playback,” not supported during “Normal Playback”

Title:	Firmware Release Notes	Version:	v3.4.3	Date:	10/26/16
Product:	DS-90xx-ST Series DVR, DS-96xx-ST Series NVR, DS-7716NI-SP NVR	Build:		Page:	6 of 8
Action Required:	None, Information Only				



- Added precise playback in local playback interface: user inputs time when playback starts

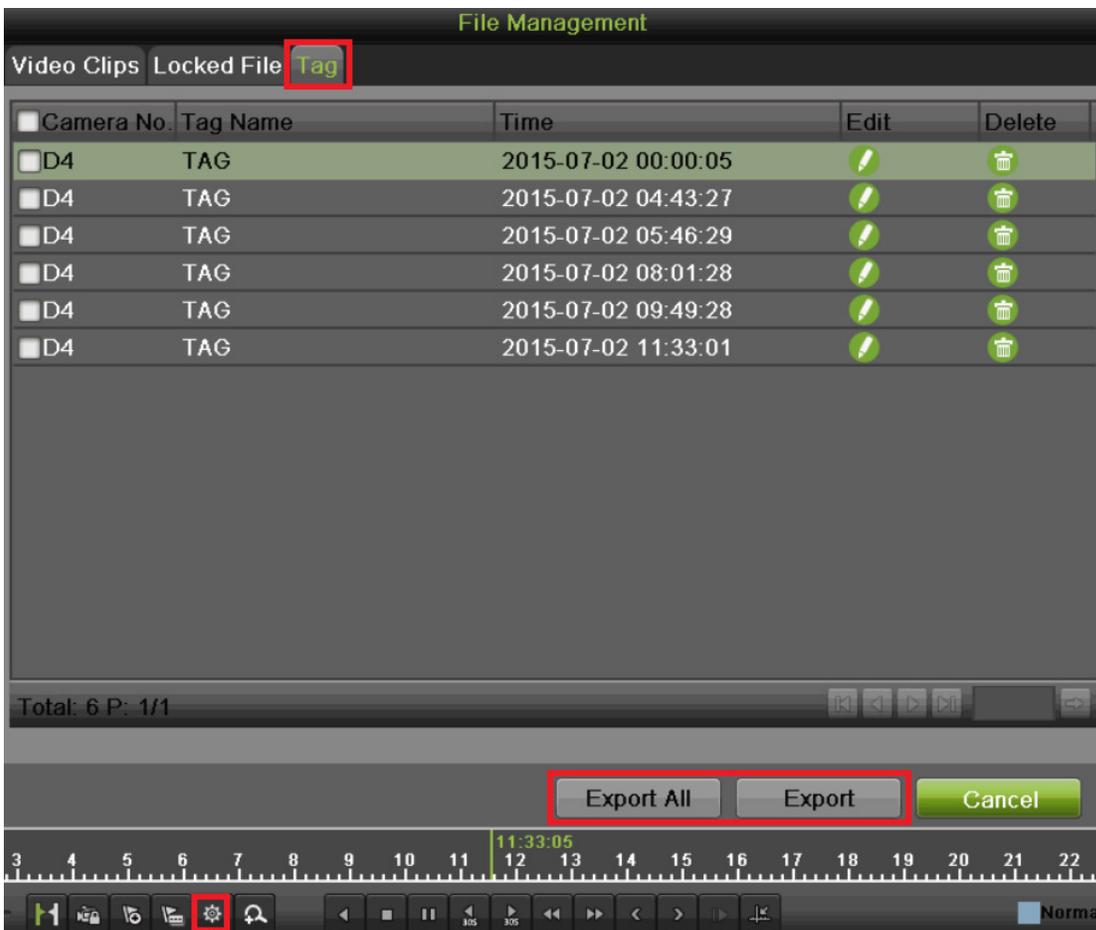


- Added single-frame playback button in full-screen playback menu; user can perform single-frame playback during pause mode

Title:	Firmware Release Notes	Version:	v3.4.3	Date:	10/26/16
Product:	DS-90xx-ST Series DVR, DS-96xx-ST Series NVR, DS-7716NI-SP NVR	Build:		Page:	7 of 8
Action Required:	None, Information Only				

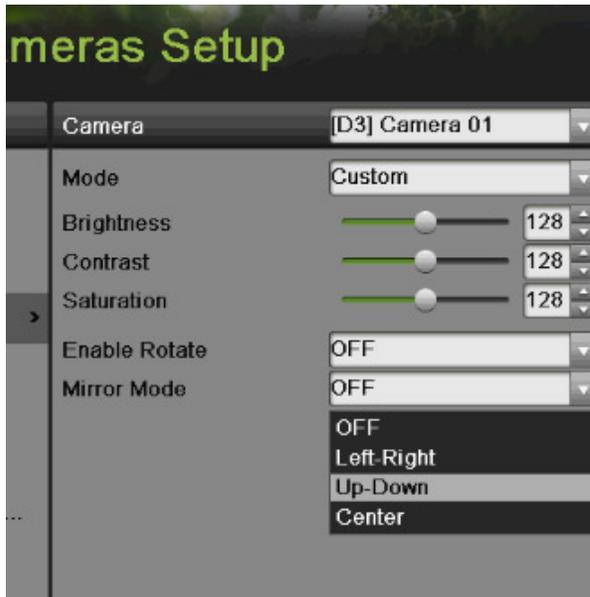


- Added "Export" and "Export All" buttons in tag menu, supporting backup tag-corresponding record files



- Rotate and Mirror mode now adjustable in Camera Setup -> Image

Title:	Firmware Release Notes	Version:	v3.4.3	Date:	10/26/16
Product:	DS-90xx-ST Series DVR, DS-96xx-ST Series NVR, DS-7716NI-SP NVR	Build:		Page:	8 of 8
Action Required:	None, Information Only				



- Improved compatibility with 4200 software
- Added support for H.264+
- Optimized the DDNS configuration.
- Added playback by sub-periods
- Added VCA alarm for up to 15 VCA detections.
- Added VCA search function for behavior search, face search (*future feature*), people counting, and heat map (*future feature*)
- Supports up to nine formats for selection when exporting the files to the storage device
- Added prompt to appear when inputting wrong user name or password when logging in
- Added support for the ANR (Automatic Network Replenishment) function