

SSM 2.22 Release Notes

2.22 (2026-09-05)

NEW FEATURES

- **SalesHub License Support:** Added SalesHub license support. (Note: Existing Gemalto licenses remain usable, but new activations are disabled.)
- **Silent Mode Installation:** Added silent mode support for server installation files.

IMPROVEMENTS

- **Security Enhancements:** Addressed key security vulnerabilities.
- **VMD Session Persistence:** Kept VMD screens active during Federation synchronization without auto-logout.
- **Direct Video Backup:** Added option to back up video directly from the pop-up player window.
- **NVR Profile Selection:** Updated live/recording profile selection to follow NVR settings.
- **Federation LPR/ANPR Events:** Enabled LPR/ANPR event viewing on the parent Federation site.

NEW DEVICE SUPPORT

- **Vaxtor Apps Compatibility:** Added support for WN9-based Vaxtor applications (see SSM User Manual for details).

BUG FIXES

- **DDNS Registration:** Fixed an issue where DDNS device registration failed with no response.

- **License Expiration:** Fixed an issue causing DVRs to become unusable after license expiration.
- **Failover Recording:** Resolved recording failures on certain failover channels.
- **Missing Recording Segments:** Resolved an issue causing frequent gaps in recorded footage.
- **Memory Leak Issue:** Fixed high System Manager server memory usage caused by excessive unauthenticated requests.
- **LPR Settings Restoration:** Fixed a bug preventing LPR vehicle settings from restoring on English OS environments.
- **LPR Search Images:** Fixed an issue where vehicle images occasionally failed to display in LPR search results.

2.21 (2026-05-22)

NEW FEATURES

- LPR, Multi-parking lot support
- Console, Silent install support

IMPROVEMENTS

- Expanded free license features
- Show only event-action-capable audio devices

NEW DEVICE SUPPORT

- Support for 45MP high-resolution cameras
- Non-PTZ models, Heater control support

BUG FIXES

- System slowdown over time due to event actions
- UI display error for total aggregated server channel license count
- Federation
 - Console, federation sub-site server disconnections
 - Duplicated display of sub-site dynamic events
 - 'Confirmed' status update error for sub-site events
- Console, one-time crash (shared layout saves in Configuration Manager)

- Console, inaccessible Configuration Manager after logging into a DDNS-configured server
- Console, dewarping errors (black screens, view mode switching failures)
- Console, incorrect layout name display in the shortcut window renaming
- Console, multilingual display errors
- Cameras being incorrectly listed as live-only channels
- Frequent overlapping recording segments
- MS crashes or repeated service restarts
 - Improved compatibility with 3rd-party ONVIF cameras
 - One-time issue occurring during Smart Search
- Increased memory usage in MS
 - Improved ONVIF metadata integration
 - Optimized performance for sequence operations
- Video Wall
 - VMM crashes during VMD registration
 - Duplicated registration of decoder monitor
 - VMD settings loss following network disruptions

2.20 (2025-12-29)

NEW FEATURES

- Hardware Decoder video recovery in case of failover/backup
- Parking barriers can now be opened from Wisenet Mobile

IMPROVEMENTS

- NIC is always maintained when the server is rebooted (no automatic change, only manual change possible)
- LPR, added restricted vehicle setting information (owner/number of rooms)
- LPR, changed information display specifications
- LPR, field filtering support when exporting search results
- LPR, applied duplicate entry waiting
- SEC backup file encryption option recommendation message added
- Event ignore time settings added (3/5/10 minutes)
- Improved convenience for sound event settings
- SCERT, removed VC2010 redistribution package
- SCERT, applied communication encryption for NVR password change function

- SCERT, updated security vulnerability library

NEW DEVICE SUPPORT

- RPL numbers applied to 4 fisheye camera models
- IP Audio Speaker and Listener support

BUG FIXES

- LPR residence time display error (calculated based on server time)
- Console abnormally terminated due to excessive metadata
- IP Speaker under the router, Talk not working.
- Rule display disappears after long-term use.
- Windows font size is set to 200%, and account information at the top is not displayed.
- Unnecessary network bandwidth increases (unnecessary authentication attempts are removed.)
- System Manager restarts infinitely after updating from version 2.10.13.
- Lower-level event action history is not updated in the upper-level federation.
- AI Bestshot is not displayed when connecting to the XNP-C6403RW.
- The console abnormally terminates when clicking the Configuration Manager site menu.
- Events are not received after the PNO-A9081R firmware update.
- ONVIF compatibility is not supported (ES6230 Pelco PTZ camera).
- Event/Audit Search tab is not accessible.

2.19.02 (2025-10-20)

IMPROVEMENTS

- NVR can be used continuously without an extra license

2.19.01 (2025-08-19)

BUG FIXES

- Fixing the issue of the SSM Console not running on a specific PC

2.19.00 (2025-07-29)

NEW FEATURES

- IPAS, Support for Independent/Master 2 modes
- Add BCR no read event action
- LPR Advanced 2nd Development

IMPROVEMENTS

- NVR Vehicle Event Support
- MGC-F9011LI, Fisheye RPL applied
- Include NVR information in equipment reporting
- Improved FAN driver security vulnerability
- Improved FFMPEG security vulnerability
- Applying equipment password encryption to equipment password change function
- Improved externally reported security vulnerability (Applied the latest version of Postgres, OpenSSL, JRE)
- Supported 16 characters for NVR device name

NEW DEVICE SUPPORT

- Compatible with three of our apps (Wise Retail/Traffic/Factory)
- Compatible with Vaxtor's license plate recognition app

BUG FIXES

- WiseMD Event, MD recording compatibility support
- Improved recording stability
- Improved retention period recording
- WACS relay not working
- WACS action not working
- Middle Eastern Arabic language improvements
- Performance improvement when event actions occur frequently
- HIK ONVIF device video not displayed
- Abnormal sound source event not displayed

- Improved stability through improved ONVIF compatibility
- Improved camera reconnection stability
- Improved stability of reconnection to ONVIF cameras registered with DDNS
- Automatically stops after 10 seconds during pan/tilt push
- Improved motion recording stability for some Q series cameras
- Flame detection camera video loss
- WorkerSafety App camera registration failure
- Improved camera Meta/Bestshot processing performance
- Video wall layout disappears
- Improved stability related to ANPR/LPR
- Shortcut key issue related to Alt Gr key
- Logistics activation not working with RS10L license
- SEC backup failure

2.18.00 (2025-03-12)

NEW FEATURES

- Add a logistics license to enable the logistics function on PC

IMPROVEMENTS

- Integrating multi-channel cameras with ONVIF protocol
- Add PgUp/PgDn shortcut keys (Monitoring the previous or next video on one large screen)
- LPR Enhancement
 - Include regional data in license plate events (for UAE only)
 - Search
 - ◆ Remove series information from license plate search results
 - ◆ Instantly register license plates from search results as registered, temporary, or restricted vehicles
 - Support the latest LPR app (exclude series from license plate field)
 - ◆ WisenetRoadAI Version: 7.3243
 - Separate the existing LPR tab into two tabs: "LPR monitoring" and "LPR Search", and modify access permissions
 - Add screen capture functionality in the LPR instant viewer window
- Support persistent field configurations for ANPR/LPR search result tables
- Add a permission lock function for the two-man rule (backup/playback)
- The intercom(TID-600R) rings continuously until the talk function is selected
- Apply naming conventions for third-party app compatibility on the Open platform

- Add a server reinstallation message when registry corruption is detected during server installation
- Do not display metadata boxes on dewarped fisheye camera video

NEW DEVICE SUPPORT

- QNF-C9010

BUG FIXES

- Issue of tile video movement in one large screen view (occurs only in full-screen mode and dual-monitor environment)
- XRP-4210 (72ch License), Issue of exceeding 72 record channels
- Login failure to release screen lock due to exceeding concurrent user limit
- IP Speaker audio quality degradation and sound interruption issues
- PTZ control failure or delay issues
- Issue of BestShot image quality degradation in object search results
- VM, I-Frame only display fails when the channel limit is exceeded (operates in it is more than)
- Failure to reconnect disconnected camera in configuration manager
- Backup viewer video not showing after Intel integrated graphics driver update (BackupViewer_v2.1.5.13_20241120)
- Automatic login to another server fails during failover
- Camera registration failure in specific cases
- Cannot access from consoles on internal and external networks at the same time
- VM License installation failed
- Barcode integration
 - Barcode save failure when exceeding 255 character limit
 - Barcode multilingual display error
 - Issue of barcode misinterpreting "_" character as a delimiter
- Map
 - When exiting one large screen view, abnormal tiles are generated and cannot be deleted
 - Camera icon position changes when map is zoomed in/out
- Proximity, Duplicate metadata display issue for identical IDs
- Fixed error displaying unnecessary shortcut input window
 - When typing in the camera search field on the console
 - When typing playback time on the console
- Already registered device is being searched (When entering a keyword in the device search filter)
- In-house explosion protection camera zoom does not stop
- Intermittent DVR reconnection failure

2.17.00 (2024-09-27)

NEW FEATURES

- Supports IP speaker on the map
- Supports two-man rule
- Added 6 additional SSW-ME licenses for SSM Appliance to the Middle East region
- Supports Windows Server IoT 2022 (Standard)

IMPROVEMENTS

- Dynamic event support in a federation
- The default admin account can be modified or deleted.
- Provides adjustable size for the logistics tab event list window
- Add camera and server information to the device configuration report
- Provides support for adding keyboard shortcuts
- Provides a warning when attempting to restore settings from a non-matching server
- Displays NVR recording profile settings
- Supports resizing the top window in the SSM console

BUG FIXES

- Dynamic events are not being delivered after federation connection restoration.
- Fixed multicast transmission issues on the SSM server
- Supports Truen encoder (TCS-410) integration

2.16.01 (2024-07-05)

BUG FIXES

- Registered ANPR cameras are not generating license plate detections events (APP HiveParkingAI, HiveLoadAI, VisionIN).
- Resolved camera registration issue under specific conditions.
- Resolved issue causing SSM Client to crash when connected to IP speaker under specific conditions.

2.16.00 (2024-06-04)

NEW FEATURES

- Added Packing Bridge license to support the logistic solution
- Added SSW-ME licenses for new SSM Appliance to the Middle East region

- Added LPR licenses for Middle East license number plates.
- Device/App compatibility
 - SG Safety App (AIA-CSF2), PPE, FALL and Crossing events support
 - IPAS v3.4.5.3 or higher support (only INDEPENDENT mode support)
- Add layout sharing feature

IMPROVEMENTS

- Add Exclusive Talk feature
- Maintain playback time when switching layouts
- Improve device tree search functionality
- Backup
 - Include playback time subtitles in AVI backup
 - Change backup capacity display unit from GB to MB or GB
- Event
 - Modify the default media backup time range and make it configurable
 - Process multiple events in batch
 - Set the default setting for displaying NVR recording status events to OFF
- Change the default profile (H.264) for RTSP connections

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: QNE-C8013RL, QNE-C9013RL, QNV-C6083R, QNO-C6083R

BUG FIXES

- Fixed unnecessary shortcut key actions
- Fixed vehicle registration information OSD not displayed in Monitoring tab
- Fixed time synchronization error (1 hour difference)
- Fixed unable to check sub-site real-time events
- Fixed when selecting a license plate event, the previous license plate video pops up
- Fixed barcode event deduplication is not working

2.15.00 (2024-02-05)

NEW FEATURES

- Added LPR Tab.
- Added AI Box support.
- Supports PPE(Safety helmet, Safety vest) detection and Fall detection events.
- Supports display of NVR RAID status on Dashboard.

- Added SVG file format to the map layout.

IMPROVEMENTS

- Improved the client tab menu display.
- Removes the object search period restriction.
- Improved the camera shortcut input UI.
- Improved the tree keyword filter in the Configuration Manager.
- Improved the map layout functions.
 - Automatically hide Map Link menu.
 - Display the camera in the center of the map.
 - Video displayed when mouse over.
- Applied the protocol changes for the Detection shot Metadata.

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: ANE-L7012L, PNV-A6081R, PNV-A6082R, PNV-A7082R, PNVA8082R, PNV-A9082R, PNO-A9311R
 - Recorder: XRN-6420DB4, XRN-6420B4, XRN-3220B4, XRN-426S-1T
 - AI BOX: AIB-800

BUG FIXES

- Fixed fast forward bug in MediaServer
- Fixed screen control issues with the System Controller in the Console.
- Fixed video loss that occurred after changing the profile of Onvif cameras.
- Fixed autofocus operation issue for XNP-C9310R/XNP-C9310RW.
- Fixed video loss that occurred after failback in Virtual Matrix.
- Fixed login failure issue in Dashboard.

2.14.00 (2023-08-25)

NEW FEATURES

- Added Logistics Solution Tab.
- Added Device Configuration Report feature to Configuration Manager.
- Added a warning light type to the external alarm out type.

IMPROVEMENTS

- SUNAPI Server integrated into MediaServer.
- Support to change the event display panel width.
- Added exclusion options (user, camera) when restoring NVR configuration.
- Improved the service control in Service Manager.
- Added a function to automatically allow the entrance of business vehicles.

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: TNV-C7013RC, QNV-C9083R, QNV-C8083R, QNV-C8011R, QNV-C8012, QNV-C9011R, PNM-C32083RVQ, PNM-C16083RVQ, QNO-C9083R, QNO-C8083R, XNP-C9310R, XNP-C7310R, XNP-L6322H1

BUG FIXES

- Fixed an issue where video frames would be dropped when playing video.
- Fixed a restore functionality issue in Service Manager.
- Fixed log deletion issue in Service Manager.
- Fixed an issue with device network ports displaying abnormally in VMM.

2.13.00 (2023-04-28)

NEW FEATURES

- Support display digital zoom ratio value.
- Added LPR search type for AI NVR in Object Search tab
- Add version mismatch notification UI between client and server

IMPROVEMENTS

- Support showing speaker IP display at event action
- Support forwarding child server failover information to federation parent server
- Support normal close event conditions for alarm input of ADAM-6050
- Change RootCA certificate processing logic for Cross-Certification (Hanwha Techwin -> Hanwha Vision)

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: TNV-C7013RC
 - Controller: SPC-2001

BUG FIXES

- Fixed an issue when request the smart search with PRN-6400DB4, the request fails from the 4th request.
- Fixed an issue that the camera reboots, when installing/uninstalling the WiseAI open platform application, the camera reboot.
- Fixed an issue where the layout sequence behaved abnormally, when a map layout was included in the sequence setup on VMD.
- Fixed media server crash, when using ONVIF/RTSP cameras.
- Fixed camera setup page authentication error in NVR setup page opened in Configuration Manager.
- Fixed an issue where the UI language was displayed incorrectly.
- Fixed the abnormal memory usage issue of SUNAPI server.
- Fixed an issue where the license information was displayed incorrectly.
- Fixed the synchronization problem of clustering data.

2.12.00 (2023-01-31)

NEW FEATURES

- Support using Password when restore/backup NVR setting
- Support display Bestshot image when Wisenet Detector User Defined Object detected
- Support Audio streaming via WAMS, when camera event occurred
- Support Windows 11 OS
- Support logging to audit when user export the event logs
- Support Hive Road AI event (Speed Detect, Illegal parking Detection, Illegal U-turn Detection, Wrong Direction Detect)

IMPROVEMENTS

- Apply VA/IA rule changes in real time

- To user can easily recognize Bestshot, correction Bestshot Image direction
- I-Frame Recording when System memory is low.
- Activate ANPR License in Appliance NVR Product
- Display Open Button time duration change from 10s to 30s
- Support Open App status log (installing, inactive, active, uninstalling, removed, installation failed)

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: TNO-L3030T, TNO-L4030T, TNO-L4030TR, TNM-C4940TD, TNM-C4950TD, TNM-C4960TD, PNM-C9022RV, XNB-6002, XNF-9013RV
 - Recorder: HRX-435FN
 - Audio Device: SPA-C100, SPA-W100, SPA-P100, SPA-H100, SPA-D1000
 - Decoder: SPD-152

BUG FIXES

- Prevent PTZ Control by keyboard input, If focused device tree in Monitoring Tab
- Fixed issue It is not synchronized between video and meta data
- Fixed issue Japanese language wrongly displayed.
- [VM] Fixed issue when back to normal mode after running Wall Spot, Monitor Layout Pattern goes to only 1 pattern view.
- Fixed issue when user use Aspect ratio setting, SSM displayed Fisheye overview video with wrong size.
- Fixed issue when User reboot the pc, SPC-7000 cannot connect.

2.11.00 (2022-09-02)

NEW FEATURES

- Support Wise Detector (Display custom object on the video)
- Support Hebrew Language

IMPROVEMENTS

- Support Edit from Searched Data in ANPR
- Support display Shortest Period in Dashboard
- Change display License count rule from XX CH to record XX CH
- Change NVR alarm input name rule from sensor to alarm input
- Support Alarm popup when user change bitrate if it exceed record bandwidth supported by device

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: PNB-A9001OP, XNV-C6083, XNV-8083RZ
 - Recorder: HRX-1635, HRX-435FN/TE, SPE-1630

BUG FIXES

- Fixed issue user cannot use talk from LTE connection
- Fixed issue ANPR event occur twice
- Fixed issue Dashboard display wrong Total value
- [Wisenet Mobile] Fixed issue when Wisenet Mobile try to Playback if device doesn't have permission, It just display retry icon
- [Wisenet Mobile] Fixed issue when user select push message, it display only ch1 and when user select event to see the detail, it shows wrong camera information
- [Wisenet Mobile] Fixed issue when user use Two-way Talk, sound play with noise
- Fixed issue Mobile Viewer does not display Site tree
- Fixed issue if System Manager have a different device certification password, user try to login with private certification
- Fixed issue when car comes in LED board cannot display information
- Fixed issue it takes too long time when server restart after SVM running long time
- Fixed issue if channel registered 50 in VMM, user cannot display video when user assign the video
- Fixed issue after motion detection end, recording does not stop

v2.10.13 Hotfix (2022-05-18)

BUG FIXES

- Fixed mobile event time display issues(Wisenet Mobile)
- Fixed mobile reverse playback issue(Wisenet Mobile)

v2.10.13 (2022-04-29)

NEW FEATURES

- Support mobile push/p2p
 - QR code
- Integration BI Spectrum Camera
 - Metadata merge
- Integration AI MDC Camera
- Add EventAction
 - NVR Shutdown
 - Mobile push
- AI Event cataloging / automate processing
 - Apply Dynamic Event (camera only)

IMPROVEMENTS

- Support microphone HTTP / HTTPS
- Support cropped image display of best shot area of X-series cameras
- Security-related Log4j remove and version update
- Remove server version notation issue on license page
- Show model name in ServiceManager / Console (appliance)

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: TNM-A4940TD/A4950TD/A4960TD, PNB-A9001OP, PNM-12082RVD, PNM-9322VQG, ANV-L7082R, ANO-L6082R, ANE-L7012R, XNZ-6320A, XNZ-L6320A, XND-8081RV01, XNV-8081R01, QNP-6320HS, QNP-6251, HCZ-6300, KNP-2550RHG01

- Recorder: ARN-1610S/810S/410S, XRN-815S, HRX-1635, HRX-435FN, QRN-1630S/830S

BUG FIXES

- Fixed media service redirect issue
- Fixed duplicate execution SystemManager service(appliance)
- Fixed an issue with simultaneous playback in server clustering state
- Fixed video OSD find twisting
- Fixed Map maximum size issue(3000 x 3000)
- Fixed related to device certificate logic
- Fixed Wisenet mobile authentication failure limit issue
- Fixed auditsearch permission remove issue during configuration initialization
- Fixed channel allocation issue during Failover
 - Fixed an issue where real-time events were not displayed
 - Fixed an issue where sensor and relay icons were not displayed
- Fixed an issue where the service manager does not run when configuring network teaming
- Fixed an issue where H.265 RTSP video did not working
- Fixed an issue where video did not working when reconnecting to NVR
- Fixed an issue when a frequent request for ARB
- Fixed MediaServer shutdown issue when Onvif camera is disconnected
- Fixed an issue where recording data was deleted
- Fixed mobile assigned channel display issue
- Fixed NVR POS could not be played issue
- Fixed an issue where NVR multi-channel playback was slow or not working.
- Fixed an issue when wan address length is less than 8 digits
- Fixed an issue where user could not connect to MediaServer

v2.10.12 (2021-12-27)

NEW FEATURES

- Support 2 more X-Plus Zoom Cameras
- ANPR capabilities evolved for ANPR camera
 - Wisenet Road AI metadata integration
 - Handle newly generated ANPR events
- Add additional functions for the TNF-9010 Camera
 - Menu change for displaying parking status of vehicles
 - Providing ToolTip for parking status menu
- Support the Wisenet Mobile App(to be released), interworking SUNAPI Server
 - Support the Wisenet Mobile App Monitoring
 - Support playback of the recorded Video via the Wisenet Mobile App

- Added interactive audio functions
- Support transferring map icon images into other tabs for additional monitoring
- Add vehicle search options for the Wisenet Road AI
 - Manufacture, Model

IMPROVEMENTS

- New ObjectSearch UI/UX applied
- Support AI camera multi-channel search
- Recorder SNMP v2 community user input value response
 - Apply configuration manager input value
- Improve video display optimization option performance
- Service manager specification update
 - Restart related services according to IP addition or deletion
- Improved multi-segment, high-speed playback performance

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP camera: XNV-6123R, XNO-6123R, XNO-6320RHP, QND-7012/22/32R, QNV-7012/22/32R, QNO-7012/22/32R
 - Recorder: PRN-6405DB4, XRN-420S, QRN-430S

BUG FIXES

- Fixed NVR reconnect issue
 - Corrected an issue where the connection was not made when the channel was disconnected again after connection
- Fixed SVM / Console Redirect issue
- Fixed the problem that the service manager does not start
- Fixed the problem that Ex-AUX menu is not exposed in PRN-6410DB4
- Fixed overlapping of SSM Console map alarm icons
- Fixed the problem that motion recording is not possible when multiple motion areas are set
- Fixed the problem of occupying channel licenses when registering cameras with inactive channels

CHANGES

- Delete ServiceManager Admin Privileges
- Add Audit Search permission
- Failover scenario change (load balancing)
 - Scenarios can be handled by changing ini settings
- Camera GPS coordinates displayed in Instant Viewer

v2.10.11 Hotfix (2021-10-15)

BUG FIXES

- Fixed issue that SSM Service Manager not executed when LAN card is not connected
- Fixed recording failure during motion event with multiple area settings.
- Fixed camera disappears after Privacy area settings.
- Fixed camera disappears after change camera failover priority.
- Fixed SSM Server memory increase issue using email action
- Fixed issue that Device disconnected if user try to change the same camera shortcut/description setting twice.

v2.10.11 (2021-8-31)

NEW FEATURES

- Support Network Intercom device
- Support WisenetRoadAI OpenApp(Nation / Search vehicle plate)
- Support 120fps Camera

IMPROVEMENTS

- Added parking guidance camera features
 - Camera objects on Map
 - Display total vehicle counts / current vehicle counts
- Display SVM(VMD) PTZ
- Increased UI display performance
 - Increased search, configuration manager, layout, map layout display performance
 - Increased search tree check / uncheck performance
- Support manual device registration using same IP and different port
- Enhanced Clustering status display
- Added feature for wrong network setting reset / reconfigure
- Enhanced relation federation / clustering
 - federation / clustering possible regardless of previous history
- Added network route when setting schedule backup file path
- Display Thermal camera event area(A/B/C)
- Enhanced patch install S/W (No need to Stop all server)
 - After 2.10.11 hotfix release version

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP camera: TNO-3040T, TNO-3050T, QNP-6320/H, QNP-6250/H, TNO-7180R, XNF-9010RS, QND-7082R, QNO-7082R, QNV-7082R
 - Recorder: XRN-6410B2, XRN-3210RB2, XRN-6410RB2, XRN-3210B2, PRN-6400DB4, PRN-6400B4, PRN-3200B4, PRN-6405B4, PRN-3205B4, PRN-3200B2, PRN-3205B2, PRN-1600B2, PRN-1605B2, HRX-1632, HRX-835, HRX-435, HRX-434, SPE-1620

BUG FIXES

- Fixed duplicated channel assign error for failover issue
- Fixed sound error by the client's event action
- Fixed event display issue when adding external event without description
- Fixed overwriting failure of the recording
- New configuration of the live performance limitation during PRP-4000/PRP-5000 RAID Rebuilding
- Fixed recording failure during motion event.
- Fixed playback pending issue using lpcam2 device
- Fixed HTTP/HTTPS display issue on auto registration, IP change window
- Fixed 'Best Shot' search issue of the XRN-420.
- Fixed display issue for the PRP-5000 license
- Fixed schedule backup issue using a network drive
- Fixed display issue when deleting user-defined event
- Fixed event search failure when using WAN.
- Fixed error of the unexpected multiple pop-up issue when setting the wrong path for schedule backup
- Change URL address length limitation during manual device registration.
- Fixed repeated event registration failure after deleting user-defined-event
- Fixed removing server failure from the list with disconnected clustered-servers

CHANGES

- Enhancing Exception for the user password and empty string.
- Enhancing FR menu security by the Face Recognition capability
- Change private certificate
- Support PostgreSQL 13.2
- Support .NET framework 4.8
- Hide menu for the ServiceManager (Configuration restore)

v2.10.10 Hotfix (2021-06-28)

BUG FIXES

- Fixed issue that overwrite failure when time is reversed.
- Fixed Failover issue(camera objects configuration change to several times when using failover server exists more than 1
- Fixed PRP-5000 license display
- Fixed Configuration Manager login error
- Fixed Console pending issue when change live to playback

v2.10.10 (2021-4-6)

NEW FEATURES

- Support parking guidance camera parking detection event
- Support Social distancing detection event
- Compatible with NVR SNMP 3.0
- Added HEVC Advance patent license message in installer EULA

IMPROVEMENTS

- Support TLS 1.0/1.1/1.2
- Complement auto login(prevent other PC logins after copying configuration files)

BUG FIXES

- Fixed ANPR unregistered vehicle event display
 - using 4 digits
- Fixed External device event(include registered in TS) event action operate
- Improved Configuration Manager tree view search speed
- Fixed abnormal shutdown cases in sequence operation on two different types of VGAs
- Fixed problem set to fish-eye lens type when registering camera starting with QN*-7010, QN*-8010 model names
- Modified Dashboard NVR DiskFull status display
- Fixed schedule backup function, when no recent recording data
- Fixed display error when clustering(HAS FEDERATION HISTORY)
- Fixed IP change not work properly with HRX-1632
- Fixed Fast Seek over 30gov video
- Fixed search device tree view from site mode

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM

- IP Camera: TNF-9010, PNV-A9081R, PND-A9081RF, PND-A9081RV, PDB-A9001, PNO-A9081R

v2.10.9 (2020-12-16)

NEW FEATURES

- Support AI NVR Face Recognition event
- Added user authority of ANPR page
 - Setting authority of ANPR for each user group
 - Monitoring / search / management for ANPR
- Added features for Dashboard
 - Copy Dashboard URL
 - Added PDF/Excel export for Server, NVR list
- Added audit log search
 - Added open/close log for live video
 - Complemented the log of user login
- Support displaying Bitrate, Compression, GoV length of ONVIF camera profile
- Compatibility for Body Temperature detect event
- Occupancy event Compatibility
- Added new events and features for event action
 - ANPR event Compatibility
 - URL calls, action of CMD execution
 - Client PC audio action
- Core server
 - Added API
 - ◆ Sending event to other system by event hook
 - ◆ External event enhancement: enable to add character string for each events
- Console Client
 - Add AI Camera masking option for live video (Beta)
 - ◆ Added masking option: BODY, BODY + FACE
 - ◆ Added option: masking scale(W/H)
 - ANPR search
 - ◆ Enable to change column order in search result page
 - ◆ Save last status
 - Turn on the wiper from tile menu
 - Showed SSM version when client logs in
 - ◆ Showed SSM version in the login page
 - Added option for showing instant player
 - ◆ Added option button to set top priority showing live video in the event list
 - PTZ Target Lock
 - ◆ Enabled to lock PTZ camera target by clicking mouse once

IMPROVEMENTS

- Enhanced compatibility with publication model of WN7 sensor
 - Registered all possible sensor channel

- Disabled if it is not in use
- Core Server
 - Enhanced response performance of processing AI NVR best shot
 - Changed low resolution additional profile with Live4NVR
- Console Client
 - Enhanced performance of showing thumbnail in AI search page
 - Added automatic video optimization option
 - ◆ Selected a profile automatically by optimization condition when enabled
 - Enhanced displaying color for YUVJ420P based video
 - Updated Fisheye IMV driver
 - ◆ Updated XNF-9010RV/RVM driver
 - Enhanced usability of Schedule Backup
 - Added to show more information when occurs instant player by event action
 - Enhanced add user UI
 - ◆ Changed to set checking password and duplicated ID check
 - ◆ Grouped required items in forms
 - Supported low speed tracking in case of mouse tracking masking backup

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP camera: PNM-8082VT, PNM-9000QB, PNM-9022V, PNM-9322VQP, TNM-3620TDY, TNO-6322ER, TNV-8010C, XNF-9010RS, XNF-9010RV, XNF-9010RVM, XNO-L6085RA, XNP-6400, XNP-6400R, XNP-6400RW, XNP-8300, XNP-8300R, XNP-8300RW, XNP-9300, XNP-9300R, XNP-9300RW
 - Recorder: PRN-3210B4, PRN-6410B4, PRN-6410DB4, XRN-1620B2, XRN-1620SB1, XRN-3210B4, XRN-6410B4, XRN-6410DB4, XRN-820S

BUG FIXES

- Core Server
 - Enhanced POST metadata session management
 - Added new RTSP error code of camera
 - Set default value of specific vendor/model for ONVIF camera
 - Supported shortcut for MS webservice
 - Enhanced SNMP handling logic
 - Changed to manage a list of OpenApp settings with a file
 - Enhanced object detection event for OpenApp
- Console Client
 - Fixed to show previously registered camera list when Add new channel to backup list in 'one time schedule'

CHANGES

- Console Client / SSM-VMD
 - Update FFmpeg decoder (4.3.1)
- LDAP user restrict Mobile use

- Logs an event log if a driver other than the Windows installed driver exists

v2.10.8 Hotfix-V2 (2020-11-19)

BUG FIXES

- Fixed SSM-VM data migration issue when update from v2.10.7 to v2.10.8
- ANPR events are not displayed while the Display device disconnected. Fixed.
- Core Server (Hotfix_20201116)
 - After update to Hotfix_20201023, SPD-151/1660 H/W Decoder couldn't connect to SSM. Fixed.
 - Fixed video display error when the client set multicast streaming with server.
 - Temporary vehicle is displayed as Temporary vehicle although it has expired.
 - When playback event action has occurred, Instant viewer does not display video. Fixed.
 - Fixed wrong status management for NVR sensor/relay.
 - Fixed memory overuse of Media Server when user export multiple video stream.
 - Fixed video streaming error when NVR repeatedly disconnected from server.
- Console Client (Hotfix_20201117)
 - Fixed schedule backup failure when user try to scheduled video backup from Core Server.
 - When user change time of schedule backup, start to export video of wrong date. Fixed.
- SSM-VM (20201103)
 - Redistribute installation package for v2.10.7 upgrade issue.

v2.10.8 Hotfix (2020-10-23)

BUG FIXES

- Fixed login failure for LDAP user account.
- Fixed device manual registration failure for devices with same IP address and different port.
- Temporary vehicle is displayed as Unregistered vehicle on the Display device. Fixed.
- ANPR events are not displayed while the Display device disconnected. Fixed.
- Core Server (Hotfix_20201023)
 - Fixed events of SUNAPI NVR(QRN-1620S) not being sent to clients on bad network condition
 - Fixed wrong timeline information when video streaming is unstable.
 - Temporary vehicle is displayed as Unregistered vehicle on the Display device. Fixed.
 - When change the camera setting, ANPR configuration of the camera is reset. Fixed.
 - Fixed handle and memory leaks when camera is connected and disconnected repeatedly.
- Console Client (Hotfix_20201022)
 - Fixed Console crash on receiving ANPR events when not use time format of “yyyy-mm-dd”
 - Sometimes disconnected when Failover status of server has been changed. Fixed.
 - Fixed problem sign board configuration initialized issue when using boom barrier temporary open.
 - Fixed issues user cannot find a regular vehicle or temporary vehicle by building/unit option in ANPR Vehicle Maintenance.
 - Sometimes image of previous opened channel is displayed when user open new video streams. Fixed.

NEW FEATURES

- Newly Designed Dashboard UI
 - Real-time SSM server and registered device monitoring
 - Status of CPU, Memory, Network Traffic, and individual devices
 - Exporting PDF summary of system status
- Auto and manual export video privacy masking (SEC Backup only)
 - Static Masking (as-is)
 - Linear path masking (manual)
 - Mouse track masking (manual)
 - AI Auto masking (supported on channels with AI Camera)
 - Color box or mosaic selection option for masking area
- TTA VMS certification (for Korea)
 - Encrypted storage and communication of user accounts and device IDs
 - Playback synchronization in less than 300ms across all servers in a system
 - Relay out setting option for cameras connected with ONVIF Profile S
 - Additional logs:
 - ◆ Core Server service start and stop
 - ◆ Core Server's recording settings change
 - ◆ Device add, edit, delete
- ANPR based parking lot management
 - Enabled to logically connect alarm out to different channels
 - Showing pre-set layout when doing playback of search result
 - Compatible with FFGROUP's OpenApp
- AI NVR Compatibility
 - AI Search, receiving AI Event and Bestshot supported
 - Searching AI NVR's License Plate.
 - Playback of Dual recording tracks supported
- AI Camera Compatibility
 - Searching and receiving Face Mask event supported.
- Compatibility with A2TEK Face Mask detection OpenApp events
- Filtered playback for each recording type
- Event Action enhancements:
 - Pre-recording time set for manual recording
 - Layout Instant popup for event actions (maximum of 16 channels)

IMPROVEMENTS

- Applied changes on Face Mask Detection metadata (for AI Camera)
- Improvements made for Recording and Playback stability
- Console Client:
 - Merged AI and Event search pages into one
 - Performance improvement and new UI for Setting page
 - Faster switching between Live and Playback pages
 - QNF-9010 Immervision Dewarping support

- Clicking timeline in Live page will directly switch to Playback page
- Smoother layout sequence transition
- User layout setting included for the layout sequence
- ANPR Open button moved to right bottom
- Camera's model name shown in Configuration manager's profile setup
- SSM-VM
 - VMM-Monitoring Layout pattern selection UI
 - Event log on failure of VMM-Layout transition
 - Smoother VMD-Layout sequence transition
 - Web Service interface for communicating with core server
 - Improved setting and saving scenario of wall layout

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: TNU-6321, XNP-9300RW, XNP-8300RW, XNP-6400RW, PNM-9002VQ, PNM-7002VD, XNO-6085RA, XNO-L6085RA
 - Recorder: PRN-6410DB4, PRN-6410B4, PRN-3210B4, XRN-6410DB4, XRN-6410B4, XRN-3210B4

BUG FIXES

- Core Server
 - Fixes on Playback stability
 - Fixed playback error on Camera SD DST section records
 - PRP-4000 and PRP-4000 memory leak issue fixed
 - Fixed Windows error after updating to Windows 10 2004
 - Fixed channels disconnection of XRN-810s when search POS event.
 - Fixed the problem that E-mail event action did not working when NVR disconnection event occurred.
 - Fixed license being unrecognized (License Driver update)
- Console Client
 - Fixed Map layout shown small
 - Fixed Grey area being shown when Wisenet 7 H265 recording video is played.
 - Fixed license counting error for recording channel allocation in Configuration Manager
 - Fixed Application stoppage when heavy loads of event are received
 - Fixed event search timeout being indefinite for disconnected server
 - Fixed error in doing playback on overlapped section
 - Fixed blinking or green screen being shown while Tile video transition or Fisheye dewarping is conducted
 - Fixed IP incorrectly being input for several regions
 - Fixed Schedule backup not working for NVR's Recording data
 - Fixed program not starting the position last visited after quitting program in full screen mode.
 - Fixed live error on Failover video channels.
 - Fixed playback error on POS event search.
- SSM-VM

- License driver update
- Fixed video lagging when media responses are delayed.

CHANGES

- Core Server
 - Default server log storage period set to 30 days (previously 7 days)
 - Default for password change period set to OFF (previously 30 days)
- Console Client:
 - Removed Event Search page and has been merged into a single search page.
 - Removed AI Search page and has been merged into a single search page.
 - Removed Layout sequence transition standby time option

KNOWN ISSUES

- Video open failure from TOPSEE TH38Q11 ONVIF Camera : Will be fixed v2.10.9

NEW FEATURES

- Real-time event monitoring
 - Real-time event monitoring Support real-time search and filtering events by Camera, Event type and priority
- Real-time AI BestShot event monitoring
 - Wisenet AI Camera compatibility
 - Display real-time BestShot image of person/face/vehicle object
- Encrypt recorded video
 - Encrypt recorded video with certification + password
 - Only available on channels recorded in SSM Core Server (does not support NVR/DVR)
- ANPR based parking lot management (South Korea only)
 - Compatible with Wisenet ANPR camera with open app (Duricomtech, Visionin)
 - Configuration, Vehicle management, Monitoring and ANPR Search supported
 - Support boom barrier control (Camera alarm out) and electronic display(DABIT Protocol)
 - Real-time event monitor
 - ◆ Real-time ANPR event monitor Support real-time search, display information setting and filtering events by Camera and registration status
- Added open source license notification in Console Client information window
- Device certificate based Mutual authentication
- Added event log (TTA certified)
 - Logging status change of recording disk of SSM Core Server

IMPROVEMENTS

- Support changing camera connection protocol to ONVIF
- Display profile and IP of camera registered in NVR
- Enhanced display of license status and details
- Usability improvements for video playback
- Core Server
 - Improved stability of overwriting recorded video
 - Improved stability of saving video when an error occurred in recording disk
 - Stronger security between devices and SSM Core Server (support TLS 1.3)
 - Improved time synchronization of video/ metadata
 - Faster channel synchronization in clustered environment
 - Improved stability of time synchronization
 - Improve performance of dashboard
- Console Client
 - New UX for AI search
 - Display playback time information when PAUSE/CLOSE triggered
 - Added option for setting OSD font size and position
 - Enable to backup DVR video exceeding 1 day period

- Added contrast / brightness adjustment button on the video tile (delete contrast / brightness adjustment button in toolbox)
- Substituting oldest video when new event occurs while monitoring event spot
- Improved speed of TALK, BROADCAST ON/OFF
- Improved usability of keyboard/mouse during video playback (supported only for recorded channels of SSM Core Server)
 - ◆ Control playing speed and direction with arrow keys
 - ◆ Pause and play video with spacebar
 - ◆ Continuous playing thumbnail when pressing arrow keys or STEP F / B button while playback is paused
- Improved live video uniformity
- Improved UI scenario for assigning/withdrawing camera for recording
- SSM-VM
 - Improved setting and saving scenario of wall layout

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: XNO-L6085R, QNB-6002/8002, TNB-9000, PNB-A9001, PND-A9081RV/RF, PNO-A9081R, PNV-A9081R, XND-6081RE/RVE, XND-8081RE/RVE, XNB-9002, XNO/V-8082R, XND-8082RV, XND-8082RF, XNO-9082R, XNB-8002, XNV-9082R, XND-9082RV, XND-9082RF
 - Recorder: QRN-1620S/820S/420S, LRN-1610S/810S/410S, HRX-1621/TE, HRX-821/TE, HRX-421FN/TE

BUG FIXES

- Core Server
 - Fixed profile of NVR set by user being auto modified Enabled to playback disconnected cameras registered in NVR
 - Fixed event recording not functioning when recording schedule includes holiday
 - Fixed video not being displayed when switching to single channel view from multi-channel event playback
 - Fixed video error when RTSP over HTTP is set for ONVIF connection
 - Fixed smart search error cases with some cameras
 - Fixed user login/logout event not being sent to Console Client
 - Fixed Agent VI event not being sent to Console Client
 - Fixed event broadcast not being sent according to priority
 - Improved server stability during clustering stabilization
- Console Client
 - Fixed EPOS not being displayed for an user account after assign EPOS to a user group
 - Fixed bookmark editing popup not being opened
 - Fixed audio not continuing after pause

- Fixed Chinese character error in AI search
- Fixed UI display error at 4K resolution
- Fixed instant viewer on SSM-TS event not being opened during search event
- Fixed AI metadata and video sync mismatch for Intel QSV decoding video
- Fixed layout sequence stability
- Fixed exported H.265 video not being displayed with SEC backup viewer
- Fixed login fail to federated child server (server federation)
- Fixed playback fail in Event viewer when an event action for external set to display instant viewer
- SSM-VM
 - Fixed abnormal display of some tiles of video across monitors with SPD-1660
- Dashboard
 - Fixed wrong RAID status
 - Fixed wrong disk status in NVR/DVR

CHANGES

- Core Server
 - License Manager not included in installation
 - ◆ Support license activation in Console Client Configuration
- Console Client
 - Deleted brightness, contrast and digital Zoom in toolbox (supported within the video tiles)
 - Rearrangement of items in toolbox
 - Integrated toolbox with Audio tool Deleted displaying real-time event in event tab

Deleted bottom real-time event bar

v2.10.6 Hotfix (2020-02-07)

NEW FEATURES

- Auto alarm off schedule

IMPROVEMENTS

- Enhanced event handling performance

BUG FIXES

- Fixed timestamp sync error between video data and metadata received from camera.
- Fixed error in processing AI data (Age, Hat, width, height, timestamp).
- Fixed OSD position error when VMD videos are merged
- Fixed Server not being accessible through SSL when TLS 1.0 is set off.
- Fixed video cracking or performance degrading during event playback on different timeline
- Fixed timestamp error in recorded video
- Fixed abnormal shutdown of media server
- Fixed cameras with default password not being accessible.
- Fixed Camera not being reconnected after failover and failback
- Fixed System Manager not restarting after upgrade or setting restore when fisheye camera presets are being used.

NEW FEATURES

- Set initial password of the camera
- Support manual camera registration with RTSP URL
- Fast Seek
 - Support real-time timeline searching with mouse dragging in SSM client
 - Only available on channels recorded in SSM Core Server. (does not support NVR/DVR)
- AI Search
 - Wisenet AI Camera compatibility
 - Support object AI detection event with new record type
 - Support Person / Face / Vehicle object search
 - Support playback based on Bestshot from AI Camera
 - Live Masking based on AI metadata (Beta)
- Playback recorded video in SD card of live-only camera
- Set priority of camera for connection recovery
 - Three options available, high, medium and disable
 - Try to operate failover according to priority
- Color palette of thermal camera
- Change protocol of registered camera
 - Enable to switch between SUNAPI and SVNP
- Automatically turning off alarm out
- Bookmark lock and thumbnail preview
 - Show bookmark instantly from core server
 - Show preview thumbnail of bookmark
 - Lock bookmark to preserve and not to be overwritten
- Console Client
 - Support Immervision dewarping library
 - ◆ Support dewarping for latest camera
 - create custom user layout pattern in the monitoring tab
 - On Screen PTZ control
 - ◆ Support PTZ control on the video tile
 - ◆ Support Area Zoom, Continuous PTZ, Zoom In/Out, 1x Zoom
 - Store screen mode and layout when saving dewarping video to a preset

IMPROVEMENTS

- Improve Cybersecurity
 - Fixes applied with Laon-security reports
 - ◆ Authentication bypass, key data exposure (sensitive data exposure), encryption key management
 - ◆ More secure authentication and encrypted communication between server and client
 - Send email to administrator when SSM locked due to multiple times of login failure.
- Enhanced network performance in server clustering mode

- Modified and optimized flow of event
- Core Server
 - High speed searching and playback with multi-channel
 - Display video time when live-streaming (support RTCP protocol of RTSP server)
 - Support 3-Axis PTZ of ONVIF Camera
- Console Client
 - Improved performance
 - Increased maximum number of channels allowed for Layout sequence to 64 (prev. 36)
 - Display list of all channels of NVR/DVR in device name search result
 - Show metadata including resolution, codec and framerate in profile list of video context menu

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP camera: QNF-8010, TNO-3010T/3020T/3030T
 - Recorder: HRX-1621/1620/821/820/421/420

BUG FIXES

- Core Serer
 - Fixed Turkish characters not being displayed in ServiceManager.
 - Fixed name and profile information of camera being unmodifiable when registered to clustered server
 - Fixed ONVIF camera's event compatibility issues
 - Fixed POS data search failing cases
 - Fixed ONVIF camera registration failing in NAT environment.
 - Fixed NIC of camera and device not being able to set
 - Fixed server and camera state information not being updated after failback.
 - Fixed camera OSD not set when it have special characters, spaces and Chinese.
 - Fixed failure of sending audio to registered camera with SVNP
 - Fixed Wrong data being sent to the dashboard (including storage of disk and the number of cameras)
 - Fixed exception error when setting both NIC 1 and 2 in ServiceManager.
 - Improve ARB stability
- Console Client
 - Fixed wrong language displayed in Instant Viewer
 - Fixed SPC-7000 failing to control video with short cut.
 - Fixed access to dashboard failing when clustered master server failover.
 - Fixed scaling errors in UI on 4K resolution
 - Fixed 'L' being automatically typed when changing camera name.
 - Improved stability of schedule backup.
 - Reduced the time for searching device name in Configuration Manager when many devices registered.
 - Fixed intermittent failure of camera data update when failback
 - Fixed failure of backup to root folder of removable Disk
 - Fixed program exit taking unboundedly long period.

- Fixed configuration backup failing when name contains special characters
- SSM-VM
 - Fixed layout being incorrectly applied when SPD-4000 is registered
- Dashboard
 - Enable to change the size of column in log table.
 - Fixed error message repeatedly shown when failback

CHANGES

- Notification of automatic device search feature deleted
- Core Server
 - Saving metadata when save camera video feature deleted
 - License driver update
 - ◆ Sentinel HASP/LDK Windows Command Line Run-time Installer 7.100
- Console Client
 - Screen lock with “CTRL+L” only enabled in full screen mode.
 - Each window contain option to ‘use high/low resolution when using video export’.
 - ◆ Schedule backup, manual backup, masking backup and one time schedule backup
 - ◆ Supported only for channels recorded in core server.

v2.10.5 Hotfix (2019-08-28)

NEW FEATURES

- N/A

IMPROVEMENTS

- N/A

NEW DEVICE SUPPORT

- N/A

BUG FIXES

- Core Server
 - Fixed MediaServer is crashing when repeating playback command more than 65000 times.

CHANGES

- N/A

NEW FEATURES

- Completed ONVIF Profile S test with ONVIF Client Test Tool
 - Plan to register as a compatible product in ONVIF official website after SSM 2.10.5 release
- Allow user to register live streaming only camera
 - User who has SSM viewer license or record license can register up to 128 cameras which support live streaming only
 - Change record channel into live streaming only channel or vice versa
- SSM-RS 1.X license compatibility
 - If SSM installed on PC which has SSM-RS10(36CH), RS20(72CH), and RS30(128CH) license, it allows recording video as the number of SSM-RS license channel without SSM2.X license
- When user manually register SUNAPI/ONVIF camera which connected over HTTPS, user can manually enter HTTPS port number
 - When HTTP port blocked by firewall, allow direct connecting over HTTPS after manual registration (Added IP+SSL and URL+SSL options)
- Set server time
 - Set server time manually
 - Set NTP server time sync
- Enabled to set authority for 'audio listen' and 'microphone/audio broadcast' for each user group
- Set Schedule Action
 - set user action to be executed automatically on specific day of week and time
 - Enable to set instant viewer, preset, auto-broadcast, tour, swing, manual recording per group and stop recording per group
- SSM Tool Agent (support SSM Tool compatibility in later)
- Core Server
 - Added events for server stability as below
 - ◆ Event for decrease the number of receiving frame of recording profile
 - ◆ Event for exceed receiving/ sending bandwidth (receiver / sender bandwidth)
- Console Client
 - New UI style for configuration manager
 - Automatically hide login popup when screen locked
 - ◆ Enabled to Screen lock with Ctrl+L when full screen mode
 - Added event spot monitoring option
 - ◆ Enabled to set event and display time for display target
 - Locate multiple cameras at once in Map layout
 - ◆ Enabled to adjust horizontal / vertical spacing and left / right alignment

IMPROVEMENTS

- When restore from clustering unstable, automatically re-login if it is necessary
- Core Server
 - Display and set up to 300 PTZ preset for camera

- Improved performance on video backup from media server
- Console Client
 - Improved performance on display XSCREEN OSD
 - Improved on device tree display performance
 - Added error message when camera registration failed due to no license

NEW DEVICE SUPPORT

- N/A

BUG FIXES

- Core Serer
 - Improved stability of server clustering.
 - Improved stability of server Failback/Failover management
- Console Client
 - Corrected Hungarian language translation with some phrases.
 - After set instant viewer position and restart computer, do not execute as setting. Fixed
 - Console exited abnormally when register email address. Fixed.
 - When set manually export recoding data time, end time ahead of start time. Fixed
 - Play based on event time when instant viewer played
 - Corrected some UI problem on 4K Monitor display with DPI settings
 - Sometimes abnormally displayed the message 'no permission' when playback mode. Fixed
- SSM-VM
 - Sometimes incorrectly apply active layout on decoder when restart VMG. Fixed
 - Stabilize management of connection state of H/W decoder in VMG.
 - When one wall deleted after register more than two walls, other walls does not be displayed. Fixed.
 - When fail to login at SystemManager registering VMD, cannot register that VMD later. Fixed

CHANGES

- Console Client
 - Limit the number of layout and map
 - ◆ Add up to 3000 for layout, 1000 for map
 - ◆ Existing version users can search/use even if exceed maximum
 - Update FFmpeg decoder (4.1.3)
- SSM-VM
 - Update FFmpeg decoder (4.1.3)

NEW FEATURES

- Arrange a video from one camera at multiple tiles duplicate
 - Play each channel recorded on core server separately
 - Play channels recorded on NVR/DVR simultaneously
- Set different validity period of channel for each group of user
- Check device certificate
- Core Server
 - Calculate storage space when backup the video recorded on core server
 - Record and play bi-directional audio on core server
- Console Client
 - Play video of specific channel immediately on wall monitor
 - Watch previous/next video on single view
 - Display Video Analytics information on tile
 - Change the size of OSD Font
 - Set tile event effect and display time
 - ◆ Tile event : frame of the tile lighting animation when event occurred
 - Save setting of digital zoom when save layout
- SSM-VM
 - Wall-layout sequence

IMPROVEMENTS

- Core Server
 - Added play video in slow motion(1/2, 1/4 speed enable)
 - Improved search performance of recording timeline
 - Improved recognizing PTZ capability
 - Support SHA-256 when certificate HTTP Digest authentication of camera
 - Support smart search for Q series camera
- Console Client
 - Added channel search/arrangement at layout menu in Configuration Manager
 - Open NVR web page with chrome container
 - Control video from multiple NVR simultaneously when playback
 - Play video about relevant channel from external event on event tab

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera:
 - ◆ PTZ Camera : XNP-6321H, XNP-6321, XNP-6320HG, XNP-6370RHA, ,XNP-6320H, XNP-6320, XNP-6320HS, XNP-6370H, XNP-6040H, XNP-6120H, XNP-6370RH
 - ◆ Dome Camera : XND-6080RG, QNE-7080RV, XNV-8080RS, XNV-6085, XND-6085, XND-K6080

- ◆ Bullet Camera : XNO-L6120R, XNO-6120RG, XNO-6085RG, XNO-L6020R, XNO-6080RA, XNO-6080RG, XNO-L6080R, XNO-6090RH, XNO-6095RH
- ◆ Box Camera : XNZ-6320, QNB-6000, XNB-6001, QNB-7010RH, QNB-7080RH
- NVR: XRN-1610SA, XRN-1610A, XRN-2010A, XRN-2011A, XRN-3010A, QRN-410S

BUG FIXES

- Did not support DPTZ for hardware dewarping profile of camera (XNF-8010/PNF-9010) which is registered NVR. Fixed
- SSM failed to play recorded data of other day if there are no recorded data when user change live to playback. Fixed
- Core Server
 - Assign previous recorded drive automatically when re-register the camera which unregistered with keeping recorded data,
 - Failed to replace camera normally. Fixed
 - URL information was not kept when register with URL. Fixed
 - Delete the oldest data for overwrite if recorded data is allocated more than two disk
 - Improve stability of server clustering.
 - Improve recording stability when Fail over occurred.
 - Server recording stopped occasionally when live/playback occurs alternately on client. Fixed
 - Service manager exited occasionally when Fail over / fail back occurs alternately. Fixed
 - Failed to play the video when client request previous/next frame. Fixed
 - Previous profile connection remained when change recording profile. Fixed
 - Problem regarding from DST ON to DST OFF section when playback/backup. Fixed
 - Server was restarted occasionally when change video information of multiple cameras at once. Fixed
 - Password was not set when enter more than 10 letters without special characters for first password setting. Fixed
 - Event action of parent site did not work when event occurred from child site in federation. Fixed
 - Cannot receive video when access NVR with SSL. Fixed
 - Temperature sensing, shock sensing event were not recorded in SSM for TNO-4041 camera. Fixed
 - Disk setting was not kept when update SSM from 2.00.2. Fixed
 - Went back to previous profile setting when change profile of HRD-442 device monitoring. Fixed
- Console Client
 - Delete serial number enter field when register offline license of Configuration Manager
 - XSCREEN Memory leaked. Fixed
 - Color of video distorted when dewarp video of Fish-Eye Camera with CUDA decoder. Fixed
 - Memory leaked when capture monitoring display. Fixed
 - Memory leaked when launch instant popup. Fixed
 - Event search, playback did not work with DST ON section. Fixed

- Fish-eye dewarping performance decreased when use CUDA decoder. Fixed
- Event updated slowly when multiple event occur on event tab. Fixed
- Video was not displayed smoothly with metadata showing option on. Fixed
- Failover icon did not show normally when failover occurred in Configuration Manager. Fixed
- Backup-Viewer abnormally exited when SEC backup which support G726 audio of ONVIF camera. Fixed
- SSM-VM
 - Abnormally updated when register more than two VMD in VMM of clustered server. Fixed
 - VMM Abnormally exited occasionally when allocating tile spot to wall layout. Fixed
 - ssm_log folder created when install VMD in desktop background folder. Fixed
 - Failed to display tile event when video event occurred. Fixed
 - Did not automatically re-run when terminate VMD. Fixed

CHANGES

- 16 channel allow to record for Viewer License.
- Core Serer
 - Replace from Oracle JRE to Zulu Platform
 - Update open source version (Boost, OpenSSL, SQLite, gSOAP)
 - Resize recorded file data up to 100MB (previously 400MB)

NEW FEATURES

- Temperature measurement function for TNO-4030TR/4040TR/4041TR
- Integration with domestic(ROK) functions – ANPR/Elevator/Door bell
- New event logs
 - Add/Delete/Modify User/User Group
 - User Log-in fail/lock/deny
 - Start/Stop/Control Playback
 - Change recording settings of the Core Server
 - Change event settings.
 - Reset system configuration.
- Console Client
 - Added a button to show/hide the timeline on the monitoring UI
 - Supported Ukrainian language

IMPROVEMENTS

- Improved Live/Playback streaming request/response time.
- Now user can choose Record-low profile in the Core Server. (Previous versions only allowed “Low4SSM” profile for Record-low)
- Simplified of Core Server configuration Backup & Restore process by removing Domain backup/restore option.
- Added “Failover/Failback” event action items for the Core Server.
- Now Administrator can modify layout settings of other user group.
- Core Server
 - Improved synchronized multi-channel playback performance.
 - Changed low-profile framerate from 24 to 15fps.
- Console Client
 - Removed Pattern tab and merged it into Tools tab on the Monitoring window.
 - Now support Max.36channel layout sequence (before Max.16channel)
 - Improved 15M video display performance.
 - Added “No video” symbol icon on the video tile. When user starts synchronized multi-channel playback, and if some of them do not have recording video, those channels show “No video” symbol on the video tile.
 - Now show tooltip on shortcut buttons in the video tile.
 - Now show “Warning popup window” when user try to request 133 channel videos or more at the same time.
 - Improved continuous PTZ request time.
 - Added “alarm out control” on the context menu of video tile. (Only for NVR channel)
 - Added “send audio file” on the context menu of video tile.
 - During ‘video layout sequence’ or ‘event spot’, when user select a specific channel and switch to one channel view (via double click), video sequence will be paused until back to original layout.

- Removed 'X' button in the 'Real-time event bar' to hide itself. User can use the same function in the 'Tool bar'.
- Improved time settings UI of 'Export Video' and 'Bookmark'. Now user can modify start/end time directly without using timeline bar.
- Added 'Select all', 'Deselect all' button in the Timeline filter window.
- Updated newly Backup Viewer to play sec backup file.
- SSM-VM
 - Improved 15M video display performance.

NEW DEVICE SUPPORT

- SSM Core Server/Console Client/VM
 - IP Camera: TNO-4030TR/4040TR/4041TR Thermal Camera, PNM-9030V 15M Camera
 - Decoder: SPD-151

BUG FIXES

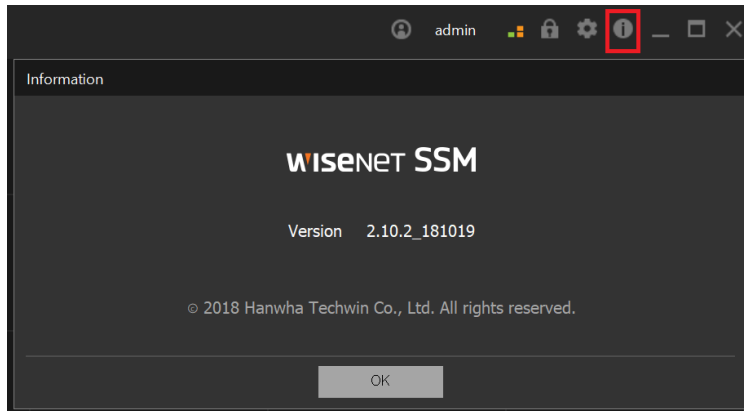
- Core Serer
 - Take long time or no response when 128 multi-channel playback Fixed.
 - Couldn't search 'Sound classification' recording data of NVR. Fixed.
 - When the client request snapshot of the camera, sometimes other command such as PTZ control react slowly. Fixed.
 - Corrected RTSP Server functions for SPD-1660 decoder, sometimes video frame would be dropped when SPD-1660 request Live/Playback streams to Core Server. Fixed.
 - Fixed handle and memory leaks when user switches Live/Playback repeatedly.
 - Couldn't receive video from the NVR connected by SSL. Fixed.
 - Couldn't send audio to the devices anymore after once failure. Fixed.
 - Some of recording data loss. Fixed. (including iSCSI condition)
 - Crash sometimes when user remove the device from the Core Server. Fixed.
 - Incorrect Smart Search capability of not supported cameras. Fixed.
 - Didn't work normally when Step F/B(move to a next/previous frame) function with NVR playback. Fixed.
 - Overwrite recording settings didn't work normally sometimes. Fixed.
 - Fixed playback problem with SSM Mobile Viewer.
 - Video loss sometimes while the client receive multiple video streams. Fixed.
 - Corrected some playback control issues with SEEK, PAUSE, PLAY.
 - On the server clustering, server's name with Chinese does not displayed normally. Fixed.
 - If the map image is large size, Core Server does not save it normally. Fixed.
 - When network status is unstable, Server does not work normally sometimes. Fixed.
- Console Client
 - Anti-aliasing option did not work when use Intel Quick Sync decoder. Fixed.
 - Some videos display grey extra line bottom of the image when use NVIDIA Cuda decoder. Fixed.
 - Changed H265 S/W decoder from Mainconcept to FFmpeg 4.0.2 for stability. (Crash sometimes when decoding H265 video using Mainconcept decoder.)

- Did not displayed 'shortcut' number in the device tree in the 'Advanced Search', 'Event' window even though user set the 'short cut' of the channel. (it works only on the 'Monitoring' window). Fixed.
- Corrected "Sort by registration time" function on the device tree in the 'Monitoring' window.
- Fixed errors with "Send audio function"
- Couldn't drag a user layout and drop into VM control panel. Fixed.
- Couldn't change Alarm In/Out name. Fixed.
- Didn't show warning popup when user start the client on Windows Server 2012.Fixed.
- Corrected some issues regarding automatic low/high profile change when user change layout pattern.
- Correct GDI handle and memory leaks when user switches Live/Playback repeatedly.
- When user create multiple event actions, only one item was applied. Fixed.
- Crash on some PC which has abnormal 'Performance Counters' settings. Fixed.
- While layout sequence, sometimes previous channel video was displayed. Fixed.
- When user starts FHD 4 channels playback with NVR, 2x play and step forward/backward function didn't work normally. Fixed.
- While NVR multi-channel Playback, when user switches one-channel view, video was stopped. Fixed.
- Crash sometimes while layout sequence. Fixed.
- SSM-VM
 - Crash when VMG connect to SSM Core Server with SSL. Fixed.
 - Added .net framework 4.5.2 & vcredist 2015 setup files in the install package.
 - Improved 4K display support.
 - Changed H265 S/W decoder from Mainconcept to FFmpeg 4.0.2 for stability. (Crash sometimes when decoding H265 video using Mainconcept decoder.)
 - While layout sequence, sometimes previous channel video was displayed. Fixed.

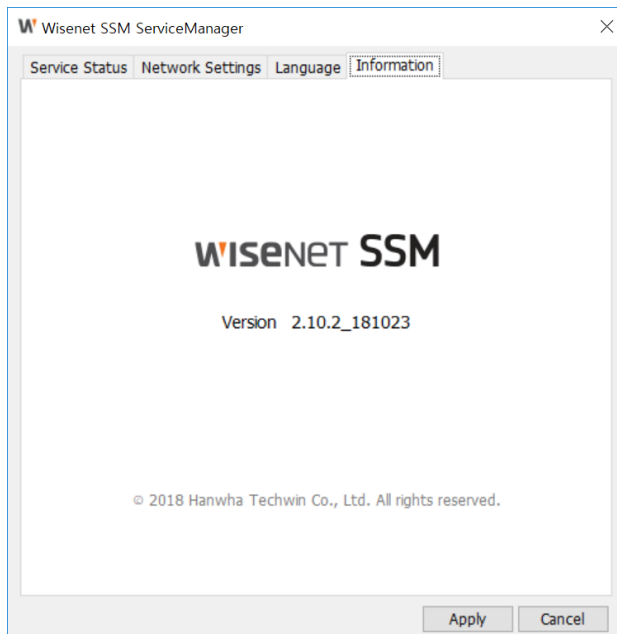
v2.10.2_Hotfix (2018-11-20)

CAUTION

- This hotfix version support only v.2.10.2, please check s/w version of Core Server & Console Client.
- Check client version on the Console Client information



- Check server version on the SSM Service manager



BUG FIXES

- Core Serer
 - [VoC] Fixed an issue that device name is displayed abnormally in none Latin character
 - [VoC] Fixed an issue that alarm or relay is counted as channel license
 - Fixed an issue that mac address is displayed abnormally in ONVIF camera, especially on SeeEyes.
 - Fixed an issue that MediaServer is crashed when ONVIF camera, especially on SeeEyes, does not support adding new profile..
 - Fixed an issue that talk is not finished when video loss is occurred while talking
 - [VoC] Fixed an issue that video is not displayed when SSL is enabled on NVR
 - [VoC] Fixed an issue that video is lagged on SPD-1660
 - [VoC] Fixed an issue that playback performance is reduced on Windows Server OS
 - [VoC] Fixed an issue that recording performance is reduced on iSCSI storage
 - [VoC] Fixed an issue that device tree is displayed abnormally when NVR is disconnected.
 - Couldn't change the video profile of the last channel on the DVR which support multiple video profile. Fixed.
 - RTSP PLAY command does not work normally, when the s/w try to use RTSP Service. Fixed.
- Console Client
 - [VoC] Fixed an issue that all tiles are not updated properly after layout is changed.
 - [VoC] Couldn't start the program on the some PCs

v2.10.2 (2018-10-24)

NEW FEATURES

- N/A

IMPROVEMENTS

- Changed Service Manager 32-bit to 64-bit architecture.
- Core Server
 - When only one drive(C drive) is exist on the system, Event logs will be recorded in the system drive. Otherwise, it will be stored in the D drive.
- Console Client
 - Improved 15M video display performance.
 - Updated S/W Certificate.

NEW DEVICE SUPPORT

- N/A

BUG FIXES

- Core Serer
 - Didn't send reconnection event to clients when Media Server was restarted. Fixed.
 - Couldn't request media to camera sometimes when clients request audio-broadcasting command repeatedly. Fixed.
 - Covert and multicast settings were initialized when Media Server was restarted. Fixed.
 - Resolved some upgrade problems regarding upgrade from 2.00.2 to 2.10.1.
 - Couldn't import/export configuration of server after system upgrade. Fixed.
 - When a server has multiple IP addresses, sometimes server clustering had been failed. Fixed.
- Console Client
 - Corrected Multi-language translation with some phrases.
 - Crash when user set event bar option repeatedly. Fixed.
 - Couldn't display event notification from external device normally on the event window. Fixed.
 - Couldn't terminate the client sometimes while schedule-backup running. Fixed.
- SSM-VM
 - Crash when user set Tile-Spot option as 16:9 tile pattern.
 - Did not update on the display even if user change OSD Map tile size.

KNOWN ISSUES

- When update SSM Core Server from v2.00.2 to 2.10.2, Email and SSL settings will be initialized.
- If older systems is running on clustering, you must stop SSM Core Server services of all clustering servers before S/W upgrade.
- When export one-time schedule on DST-ON period, .sec export may not work normally. (will be fixed next version)

NEW FEATURES

- Supported migration from SSM 2.00.2 / 2.10.0 to 2.10.1
 - 2.10.0 → 2.10.1 will be updated during installation automatically
 - 2.00.2 → 2.10.1 to migrate recording data in 2.00.1 Core Server, a separate migration tool is provided.
 - **Caution:** If older systems is running on clustering, you must stop SSM Core Server services of all clustering servers before update.
- Enhanced ONVIF device support
 - Dual profile video recording for ONVIF cameras; If you register ONVIF cameras on Core Server, it would create a new low video profile automatically.(H264, 640x360, 24fps, 350Kbps, Low4SSM)
 - Supported ONVIF Audio backchannel.
- SSM-VM
 - Supported Active/Active Fail Over
 - Direct Wall Display; you can now set to video sequence action from Console Client to VM
 - New graphics pipeline: Migration from DirectX9 to DirectX11
 - Supported Max 132 video simultaneous monitoring
 - Added 72/81/100/121/132 video display tile patterns

IMPROVEMENTS

- Improved Wisenet ACS integration
 - Supported WACS event types
- Core Server
 - Improved CPU usage of Media Server when it streams to clients.
- Console Client
 - Improved some Icons design; Playback Sync, MIC
 - Added “Show IP” option in OSD settings.
 - Enhanced device manual registration; now you can register multiple devices at a time with IP range
 - Added Mic icon on the video display when a user sends audio to the device.
 - Improved Fish-eye PTZ control; adjust speed value on the control when zooming in/out in XNF-8010, PNF-9010 dewarping mode.
 - Removed ID/PW field on “Scheduled export” setting page. It does not need anymore.
- SSM-VM
 - Simplified CUDA Decoder option; users just enable or disable CUDA Decoder if it can be used on the PC
 - Changed High/Low profile setting in the same way as Console Client

NEW DEVICE SUPPORT

- Core Server/Console Client
 - IP Camera: PNM-9320VQP

BUG FIXES

- Core Serer
 - Fixed a problem regarding audio transmission and broadcasting.
 - Resolved an issue with the ARB (Auto recovery backup) function with the disconnected camera; Despite ARB, an empty timeline still exists. Fixed.
 - Video playback was stopped occasionally when recording timeline had no-record sections. Fixed.
 - Crash when media
- Console Client
 - Corrected some UI problem on 4K Monitor display with DPI settings.
 - Corrected Memory and handle leaks when open and close a window repeatedly. It could cause to reduce s/w performance and crash.
 - Sometimes crash when dewarping multiple SNF-8010 cameras. Fixed
 - Audio data were cut when sending audio to devices using an audio file. Fixed
 - When Intel Quick Sync Decoder option was enabled, and the user tries to see "Original Size" of the selected video via the context menu, S/W crashed. Fixed
 - Device name was not displayed on Export video window when user set to "Name set by the devices" as "true". Fixed
 - Crashed rarely when user search timeline on "Advanced Search" window. Fixed
 - When the server was disconnected and reconnected, last video image was displayed on the screen permanently not to request new media to the server.
 - Was running slow on a specific PC. (CPU/MEMORY/NETWORK resource check routine could cause thread/handle leaks on specific PC.). Fixed.

KNOWN ISSUES

- When update SSM Core Server from v2.00.2 to 2.10.1, Email settings will be initialized.
- If older systems is running on clustering, you must stop SSM Core Server services of all clustering servers before S/W upgrade.
- When export one-time schedule on DST-ON period, .sec export may not work normally. (will be fixed next version)

v2.10.0 (2018-07-24): PRP-4000/5000 PC NVR ONLY

NEW FEATURES

- Active/Active Fail Over
 - Active/Active Failover; Now supported High-availability clusters. HA Clustering remedies this situation by detecting hardware/software/network faults
- Event filtering by device
 - In the Configuration window > Event > Management > Client Event of Console Client, you can set to filter and receive only the certain events by the device.
- Settings for set alarm input/alarm output
 - In the Configuration window > device tree of Console Client, now the user must register/unregister alarm input or alarm output object to manage it.
- Settings for the initial password of Core Server
 - After installing Core Server, then the user needs to set an initial password for the Admin when you log first into Core Server
- Dual profile video recording
 - When you record camera videos on Core Server, you can set whether to record low-resolution videos and high-resolution videos at the same time.
 - If you registered cameras using SUNAPI protocol, Core Server can low video profile automatically. (H264, 640x360, 24fps, 350Kbps, Low4SSM)
- IP based license
 - When you register a multi-channel supported camera or an encoder, only 1 channel license is required even if it streams multiple video channels. (within Max.128 channels)
- Core Server
 - New Media Server; Core Server merged Media Gateway and Recording Server into Media Server, Now it can provide better performance and recording capacity.
- Console Client
 - New graphics pipeline: Migration from DirectX9 to DirectX11
 - Supported Intel Quick Sync video decoding (Max 128ch : H264 640*360*24fps, Max 36ch : H264 1920*1080*30fps)
 - Added status icon to view CPU/Memory/Network usage
 - Added a setting in Screen option; Only I-frames are played when decoding or rendering loads occur
 - Added "Auto Layout mode"; Clicking "Auto" button in Pattern menu will automatically set the screen split of the video window
 - Added Auto-start option on Windows startup
 - Added Scheduled export; You can automatically export the recorded videos of the previous date stored in Core Server/NVR/DVR every day at a specified time on the next date.

IMPROVEMENTS

- Core Server
 - Supported Max 2,048 channels/domain, 128 channels/server in case of using server storage

- Supported Max 28 server clustering
- Supported up to 35 simultaneous connection per server
- Supported 128Channel simultaneous playback.
- Supported High/Low dual profile recording/playback
- Added event occurrence overload alarm, When Core Server receive too many events from devices, then the server will not send low priority events to Console Clients logged in.
- Improved restoration procedure when DB and configuration crashed
- Console Client
 - Supported Max 132 video simultaneous monitoring
 - Added 72/81/100/121/132 video display tile patterns.
 - Improved restoration procedure when configuration crashed
 - Supported multiple devices selection for live monitoring; users can now drag and drop multiple devices into video pattern tiles at a time.
 - Simplified CUDA Decoder option; users just enable or disable CUDA Decoder if it can be used on the PC
- Dashboard (in Client or web browser)
 - Enhanced log backup by date
 - Supported RAID Status monitoring

NEW DEVICE SUPPORT

- Core Server/Console Client
 - IP Encoder: SPE-1600/410

BUG FIXES

- See 2.10.1 release note

KNOWN ISSUES

- N/A

v2.00.2 (2018-03-28) : Official Release

NEW FEATURES

- N/A.

IMPROVEMENTS

- Core Server
 - Improved RTSP Server performance and stability. (For SPD-1660R Video Sequence)
- Console Client
 - Added a split bar on Layout setting page, Map setting page in Configuration. Now you can move a bar right to view more of the data in the left window.
- SSM-VM
 - Improved SPD-1660R video sequence performance

NEW DEVICE SUPPORT

- N/A

BUG FIXES

- SSM Core Server
 - Corrected handle leaks of RTSP Server in MG
 - Corrected handle leaks of MG when SVP devices are connected.
 - Fixed a problem that could cause abnormal MG termination while Sequence monitoring of registered devices. (SVNP/SUNAPI protocol for the camera, SVP/SUNAPI protocol for NVR/DVR could cause the problem)
 - RS Log Manager Service has sometimes terminated abnormally. Fixed.
 - The user can not remove registered cameras after reset settings to default. Fixed
 - [Service Manager] Service Start/Stop command didn't work sometimes. Fixed
- Console Client
 - Device tree UI sometimes did not update status when the user removes a device from the Core Server. Fixed
 - Recording Server was terminated abnormally by the client when the user requests 2days period timeline. Fixed
 - When you try to change the video profile of multiple cameras on the Configuration window, and one of them have no profile information, it sometimes could cause abnormal termination. Fixed
 - If user set "Name set by the device" as checked, Device tree UI didn't update on the Monitoring window. Fixed
 - After the user logged in as "User Group", when trying to change layout settings, Tree UI sometimes couldn't display camera list. Fixed
- SSM-VM

- Corrected memory leaks of VMG
- Fixed a problem that could cause abnormal VMM termination when user set tile spot on the 16:9 monitor mode.

KNOWN ISSUES

- If network connection between cameras and Core Server, it could cause abnormal termination of Core Server (SUNAPI Camera, in rare cases)

v2.00.1 (2018-01-27): Official Release

NEW FEATURES

- Auto-discovered devices notification on Real-time Events Window
- IP assignments for multiple devices
 - You can now change the IP addresses of multiple devices at a time in range.
- Live preview image of the registered SUNAPI devices.
- Dashboard for the monitoring system.
 - You can now monitor the status of the SSM Core Server system with SSM Console client or a web browser.

IMPROVEMENTS

- Enhanced user interface on Video display screen.
 - Snapshot, Local recording, Digital zoom buttons on the live video tile.
 - UI animations when user moves video tiles with mouse input.

NEW DEVICE SUPPORT

- SSM Core Server/Console Client
 - IP Camera: PNM-9080VQ
- SSM-VM
 - SPD-1660R

BUG FIXES

- N/A

KNOWN ISSUES

- N/A