VSS

VAST Security Station

VAST Security Station
Release Notes

Revision Number: 1.7 Software Version: 1.7

VIVOTEK
A Delta Group Company

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Upgrade Consideration for VAST 2 Users

- The license mechanism has changed from VAST 2. The previous VAST 2 license will be invalid after upgrading to VSS. A corresponding new VSS license is required for each VSS edition. Contact your distributor or VIVOTEK sales representative to obtain new licenses before upgrading to VSS.
- 32-bit systems are no longer supported in VSS. The installer is only compatible with 64-bit operating systems.
- Please refer to the 'How to Migrate to VSS Instruction Manual' before upgrading from VAST 2 to VSS, available at https://www.vivotek.com/products/software/vast_security_station.

Documents

The user manual and datasheet are available at https://www.vivotek.com/products/software/vast_security_station.

System Specifications and Requirements

System specifications and requirements are available at https://www.vivotek.com/resource/learning/blog.

VSS 1.7.0.1020 – Nov 10, 2026

Product Information

Product Model:	VSS
VSS Software Version:	1.7.0.1020
Device Pack Version:	5.9.538
Health Monitor Version:	1.2.0.1029
VORTEX Connect Version:	09.10.29

Release Summary

VSS v1.7.0.1020 is a major release that introduces new capabilities for active session management, alarm configuration and response, and control-room collaboration through Matrix.

This release also adds delegated user and role management, dewarped fisheye video export, and several improvements to device access, alarm workflows, camera onboarding, security, and system operation.

New Features

- **Active Session Management**

  Administrators can now view and manage active sessions connected to the VSS server through VSS Client, Matrix Client, and Web Client.

  - View session details, including user account, role, client type, IP address, login time, and session duration.
  - Force logout a selected client session after confirmation.

  Limitations

  - Web Client sessions do not display a source IP address.
  - Mobile apps, API integrations, VCA Report, and background services are not included.
  - VSS Client and Matrix Client versions earlier than 1.7 may automatically reconnect after being forced to log out if automatic login is enabled.

- **Enhanced Alarm Information and Visual Indicators**

  The Alarm Tab in VSS Client and Matrix Client now displays contextual alarm information with live video delivered through the Send live streaming alarm action, helping operators understand and respond to newly triggered events.

  - Display the alarm name, alarm information, and trigger time below the video cell.
  - Briefly highlight the information bar when a new alarm appears.
  - Visually indicate when an alarm has been viewed during the current Alarm Tab session.

  Note

  The viewed state is temporary and is not retained after the current Alarm Tab session.

- **Expanded Alarm Configuration**

  Alarm configuration now provides more precise trigger selection and additional response options for cameras managed by the local VSS server or supported substations.

  - Select one or more specific VCA rules, or all rules, when configuring an alarm trigger.
  - Support using Face Detection, Missing Object Detection, and Unattended Object Detection from supported Smart Tracking PTZ cameras as alarm trigger sources.
  - Send a supported Smart Tracking PTZ camera to a preset position and start tracking.
  - Set the digital output status of cameras managed by VSS or ND substations.
  - Add bookmarks to recordings from cameras managed by VSS substations.
  - Search for cameras by folder name when configuring alarm triggers and actions.

  Compatibility

  Existing VCA alarm triggers created in previous versions are upgraded with all rules selected.

  Starting Smart Tracking from a preset requires a camera that supports Smart Tracking Advanced, along with the corresponding firmware and configuration.

  Limitations

  - Starting Smart Tracking from a preset is not supported for cameras managed by ND substations.
  - Adding bookmarks is not supported for cameras managed by ND substations.

- **Push to Matrix**

  Operators can push live videos from VSS Client to a selected Matrix display, making it easier to share important videos with other operators in the control room.

  - Push a single live video or an entire Live View layout to a selected Matrix screen.
  - Temporarily display the pushed content over the original Matrix content.
  - Replace previously pushed content when new content is sent to the same screen.
  - View the destination screen, content type, and push time in the Active on Matrix list.
  - Stop individual pushed content or clear all content listed in Active on Matrix.
  - Restore the original Matrix content after the pushed content is closed.

  Availability

  The Send video to a Matrix screen option is available from a Live View video cell or Live tab when the VSS server is connected to Matrix and the user has the required Matrix permissions. No additional license is required.

  Behavior

Pushed content can be closed in the VSS Client or by selecting the close icon in the pushed-content window in Matrix Client. Closing it from Matrix Client restores the original Matrix content but does not synchronise its status back to the Active on Matrix list in VSS Client.

- **Export Dewarped Fisheye Video**

  Operators can export fisheye footage as a dewarped Quad View (4R) video for playback in supported third-party media players. This provides an immediately viewable dewarped result when VSS Standalone Player is unavailable.

  - Include the original fisheye video in 1O format and a dewarped Quad View (4R) video in the same evidence bundle.
  - Cover the complete fisheye field of view without requiring operators to adjust the four viewing areas before export.
  - Export the video in either 3GP or AVI format.
  - Export fisheye footage from cameras managed by the local VSS server, VSS substations, or ND substations.
  - Use the feature in all VSS editions without an additional license.

  Limitations

  - The exported dewarped video uses a fixed Quad View (4R). Interactive dewarping remains available through VSS Standalone Player.
  - Not supported by Sync Playback.

- **Delegated User and Role Management**

  Administrators can delegate routine user and role management to selected non-administrator users without granting full Administrator access.

  Users with the Manage users and roles permission can:

  - Create, edit, and delete local users and user-defined roles.
  - Assign users to roles.
  - Reset local user passwords.
  - Assign only the permissions, cameras, and Views available to the delegated manager.

  Restrictions

  - Only Administrators can grant or revoke the Manage users and roles permission.
  - Delegated managers cannot modify their own permissions or role membership.
  - Delegated managers cannot modify other delegated managers or roles that affect protected accounts.
  - Delegated managers cannot view or manage Administrator accounts.
  - Delegated managers cannot create, assign, or modify Administrator access.
  - Delegated managers cannot manage users or roles with permissions, cameras, or Views beyond their own scope.

- Active Session Management remains available only to Administrators.

Availability

Available in all VSS editions without an additional license.

Compatibility

- When VSS 1.7 Client connects to a server earlier than version 1.7, users cannot edit users or roles, regardless of their account or permissions.
- Existing users and roles do not automatically receive the Manage users and roles permission after upgrading to VSS 1.7. An Administrator must grant permission explicitly.

Improvements and Enhancements

- **Access to All Current and Future Cameras**

  The existing Accessible devices settings now include an All devices option. This allows administrators to grant users and roles access to all current and future cameras without updating the accessible device list whenever the system expands.

  - Automatically include cameras subsequently added to the local VSS server or through substations.
  - Provide access to all cameras when any role assigned to the user includes All devices.

  Note

  The All devices option determines device access only and does not change other user permissions.

- **Alarm Action Guide**

  The existing Action guide field can now provide operators with administrator-defined response instructions for alarms configured on the VSS server.
  When an operator selects an alarm in Alarm List/Search, VSS Client and Matrix Client display the Action Guide together with the existing alarm status, comments, acknowledgement, and history functions. This helps operators follow the required response procedure and document the outcome for later review.

- **Automatic HTTPS Detection for Camera Addition**

  VSS can now automatically detect HTTPS-only VIVOTEK cameras and switch the connection to HTTPS when TCP, UDP, or HTTP is selected.

  - Apply the camera's HTTPS protocol and port after detection.
  - Support cameras added through device search, manual address entry, or an imported device list.

  Limitations

  - ONVIF cameras are not supported.
  - Automatic detection requires a valid camera connection port. An incorrect port cannot be corrected automatically.

- **Matrix Operation Log Level**
  Changed the log level for all Matrix operations from Minor to Normal.

- **Enhanced Password Storage Security**
  Improved the protection of stored credentials by replacing legacy password storage mechanisms with a more secure approach.

Changes

- **Analytic Report Log Export**
  Removed automatic log upload from Analytic Report. Logs can still be exported manually when needed.

Deprecation Notice

- **Future Windows OS Support Changes**
  VSS v1.7 is the final VSS version to support Windows 10 and Windows Server 2016. Starting with VSS v1.8, planned for the first half of 2027, installation on these operating systems will no longer be supported. This change supports continued platform security, compatibility, and long-term maintenance.
  Microsoft ended support for Windows 10 version 22H2 on October 14, 2025. Windows 10 LTSC releases follow their respective lifecycle policies. Windows Server 2016 is scheduled to reach the end of Extended Support on January 12, 2027.

- **Notice for NR-v2 and NR-v3 Hardware Appliance Users**
  NR-v2 appliances use a built-in Windows 10 operating system that cannot be upgraded. Therefore, VSS v1.7 is the final VSS version available for the NR-v2 platform.
  Some earlier NR-v3 appliances were also supplied with Windows 10. Unlike NR-v2 appliances, eligible NR-v3 appliances can be upgraded to Windows 11 through an approved service procedure that replaces the component containing the system installation image.
  Customers using an NR-v3 appliance with Windows 10 can contact their VIVOTEK distributor to confirm upgrade eligibility and obtain the appropriate Windows 11 upgrade solution before adopting VSS v1.8 or later.

- **Recommended Action**
  Existing VSS v1.7 deployments are not immediately affected. Customers using Windows 10, Windows Server 2016, or NR-v2 appliances should begin planning their migration to supported hardware and operating systems before adopting VSS v1.8 or later.

Bug Fixed

- **System and Server Stability**

- Fixed an issue where a substation could not be expanded in the Device Tree and appeared grayed out in Station Settings after failback to the original active server.
- Fixed an issue where VSS Client could close unexpectedly if a Data Magnet search tab was closed before the search results finished loading.
- Fixed an issue where VSS Client could incorrectly display a Client Software Upgrade Notification shortly after the VSS services started.
- Fixed an issue where substation cameras could appear disconnected in CMS when the local port differed from the forwarded port.
- Fixed an issue where the Streaming Server could close unexpectedly when reading corrupted recording files.

- **Recording and Playback**
  - Fixed an issue where video-cell mouse actions, including cell selection and switching to full-screen view, could stop responding after an ONVIF fisheye camera was switched back to the 1O layout.
  - Fixed an issue where Standalone Player could skip to the last video during high-speed playback of Case Vault exports.
  - Fixed an issue where double-clicking a camera on an E-map might not start its synchronized playback stream on the first attempt.

- **User Access and Permissions**
  - Fixed an issue where non-administrator users could see Views not authorized by their access rules in VSS Web Client.
  - Fixed an issue that could prevent users from signing in to VSS with an Active Directory account in certain environments.

- **Camera Management**
  Fixed an issue where VSS recording could stop when a camera reloaded its VCA configuration.

VSS 1.6.0.2020 – Aug 18, 2026

Product Information

Product Model:	VSS
VSS Software Version:	1.6.0.2020
Device Pack Version:	5.9.532
Health Monitor Version:	1.1.6.804
VORTEX Connect Version:	09.08.06

Release Summary

VSS v1.6.0.2020 is a maintenance release for version 1.6. This release introduces dedicated Case Vault permissions, support for PPE and Fall Detection camera events, improved face recognition display, enhanced Dashboard interface for large substation deployments, and several usability and deployment improvements.

This release also resolves issues related to camera connectivity, recording, playback, alarm management, user permissions, redundant servers, NR-series appliances, and Standalone Player operation.

New Features

- **Case Vault Permission**
  Added a dedicated Case Vault permission, allowing non-administrator user accounts to access Case Vault when the permission is enabled.
  - Permissions are divided into Operation and Configuration.
    - Operation allows users to open Case Vault, play videos, and export reports.
    - Configuration allows users to add, delete, and update Case Vault items, as well as add video evidence to Case Vault.
    - Exporting reports still requires the Export Media permission.
  - Administrator accounts still have access to Case Vault.
  - Existing non-administrator accounts do not have Case Vault permissions enabled after the upgrade.

- **Support PPE and Fall Detection**
  VSS now supports PPE and Fall Detection events from VIVOTEK cameras using the SafeGuard VCA Package.
  - Supports event search.
  - Supports PPE and Fall Detection alarm triggers.
  - Supports event recording.

- **Dashboard Enhancements for Substations**
  The Dashboard improves monitoring for deployments with many Substations.

- Search for Substations by name.
- Filter the display to show all Substations or only Substations with problems.

- **Face Recognition Information Display**
  Added support for displaying face detection areas and recognized names received from VIVOTEK cameras with real-time facial recognition on the live view cell. The display of the face detection area follows the People Detection Area display option in the camera view cell, while recognized names follow the Face Box option.

Changed Features

- **Automatic Camera NTP Network Interface Selection**
  - When multiple network interfaces are available, VSS automatically identifies the interface that can connect to the target camera and configures the camera's NTP server address to use that interface's IP address.
- **Alarm and Playback Improvements**
  - The Stop Recording alarm now supports an adjustable threshold.
  - The playback calendar provides improved date handling and synchronization with the system data, including daylight saving time scenarios
- **Client and Installation Improvements**
  - The default state of the Live logical tree panel can be configured through Evangelion.ini.
  - Improve Silent Install usability by providing error codes when installation fails.
  - The "Send notification to mobile device" has been renamed to "Send Mobile Notification (iViewer)" to clearly identify the target application.
  - Cameras in the Web Client device tree are now sorted alphabetically.
- **Redundant Server Upgrade Handling**
  - Upgrade handling has been improved when a Redundant Server is in Takeover status. Users should avoid updating a standby server independently and should keep CMS and Redundant Server versions aligned.
- **Health Monitor Stability**
  - Optimized memory and resource management in Health Monitor to improve stability during long-term operation.

Limitations

- **Unable to View Failover Recordings in Non-Domain Environments**
  On Windows 11 systems with KB5065426 or later, CMS and Active VSS Substations cannot access recordings from the failover period if the CMS, Substations, and VSS Redundant Servers are not joined to the same domain. This affects VSS running on off-the-shelf Windows 11 PCs and NR-series NVRs with Windows 11 image version 4.1.
  Workaround: Join the CMS, Active VSS Substations, and VSS Redundant Servers to the same domain (recommended), or apply the registry workaround described in

Microsoft Q&A.

Bug Fixed

- **Camera and Device Management**
  - Fixed an issue where users could not update camera credentials after repeated authentication failures caused the camera to block the VSS Server.
  - Fixed an issue where a newly added Station could remain visible to users without permission until they logged in again.
  - Fixed an issue where the DIDO name of a third-level device was displayed incorrectly.
  - Fixed an issue where a changed NAS SMB password could leave the recording option incorrectly selected.
  - Fixed an issue where cameras could be missing from the device tree after logging in.
  - Fixed an issue where no video was displayed after adding a camera through the RTSP Portal.
- **Server**
  - Fixed an issue where VSS Clients could randomly disconnect from the VSS Server, and recording access could fail.
  - Fixed an issue where the Streaming Server could become unresponsive under certain camera or server conditions.
  - Fixed an issue where the Event Server could fail when processing events from certain ONVIF cameras.
  - Fixed a memory reallocation issue that could cause Streaming Server crashes or cause cameras to appear disconnected in CMS Live View when system memory was low.
  - Fixed an issue where CMS login could fail under certain deployment conditions.
  - Fixed an issue where VSS could incorrectly display the “Client Software Upgrade Notification” after system startup, even when the Client and Server versions were up to date.
  - Fixed an issue where frequent Active Directory user authentication could cause Web Server memory usage to increase continuously, potentially leading to system instability or login failures.
- **Recording**
  - Fixed an issue where a VSS could fail to create a camera recording folder when the camera name contained an invalid trailing character.
- **Playback and Standalone Player**
  - Fixed an issue where synchronized playback could behave abnormally for certain cameras.
  - Fixed an issue where the Standalone Player displayed a black view cell when no recording data was available during synchronized playback.
  - Fixed inconsistent playback behavior in Standalone Player when video files were protected with or without a password.

- Fixed an issue where third-party fisheye dewarping settings could become blank or disappear.
- Fixed an issue where the playback calendar could display an incorrect date when daylight saving time began at midnight on the first day shown in the calendar.

- **Alarm and Event Management**
  - Fixed an issue where an alarm rule could not be created when an External Device Event used a Data Magnet trigger.
  - Fixed an issue where deleting an alarm could fail or cause the Event Server to stop unexpectedly.
  - Fixed an issue where the Stop Recording alarm sensitivity could not be configured correctly.
- **Redundant Server and Failover**
  - Fixed an issue where the failover server could appear offline in the CMS Dashboard.
- **User Management**
  - Fixed an issue where logging in with a user belonging to a newly added Active Directory group could modify the group name in the database and prevent login.
- **NR-series Appliances**
  - Fixed an issue where the NR-V2 RAID Config icon could disappear, and Switch Desktop could not be accessed after upgrading to VSS version 1.5 or 1.6.
- **List Management**
  - Fixed an issue where list management data could fail to migrate when upgrading from VSS 1.5 to VSS 1.6.
- **Data Magnet**
  - Fixed an issue where Data Magnet's search criteria dropdown options would sometimes disappear.

VSS 1.6.0.1020 – May 28, 2026

Release Summary

VSS v1.6 includes new features, feature changes, enhancements, platform updates, and resolved issues for enterprise video surveillance deployments.

Key updates include Auto People Blur for privacy-ready video export, Facial Recognition List Management for centralized watchlist and profile management, and View Permission for role-based View access. This release also improves ND-series NVR re-search handling, Standalone Player layout, synchronized playback support, and Health Monitoring daily email reporting.

In addition, VSS v1.6 updates Qt, OpenSSL, and sTunnel components, and resolves issues across camera management, playback, video export, alarm management, Live View, Matrix, multi-monitor operation, and audio.

This release also includes deprecation notices: VSS v1.7 will be the final version to support Windows 10 and Windows Server 2016, and VSS v1.8 and later will no longer support installation on these operating systems.

New Features

- **Auto People Blur for Privacy-Ready Video Export (VSS Pro Edition Exclusive)**
  VSS v1.6 introduces Auto People Blur, an automated video redaction capability integrated into the VSS export workflow. This feature helps operators protect third-party privacy when exporting video evidence, while reducing manual masking work and dependency on separate redaction tools.
  Auto People Blur uses VIVOTEK camera-side VCA people bounding-box metadata to support redaction during export, helping reduce additional server-side AI processing load.
  Key Capabilities
  - Automatic People Masking: Automatically blur detected people in exported video clips to help protect third-party privacy.
  - Selective Unmasking: Use detected person thumbnails to quickly find a person of interest, unmasking only the selected subject while keeping others blurred.
  - Adjustable Mask Settings: Configure mask area and blur intensity based on privacy requirements.
  - Standard Video Export: Export redacted video clips in standard formats, such as AVI and 3GP, for playback on common media players.

  Requirements
  - Requires compatible VIVOTEK cameras that support VCA people bounding-box metadata.

  Important Notes
  - Redaction results depend on the availability and quality of people detection metadata

provided by the camera.

- Up to 20 people can be detected simultaneously in a single frame, depending on the camera's VCA hardware capability.

- The exported video is re-encoded at a fixed bitrate. Therefore, the bitrate of the exported video may differ from that of the original recording.

- **Edge-to-Core Facial Recognition List Management (VSS Pro Edition Exclusive)**

Building on the foundation of purpose-built facial recognition camera integration introduced in version 1.3, VSS version 1.6 expands its ecosystem to support VIVOTEK AI cameras with real-time edge facial recognition capabilities. This release introduces a unified facial recognition solution directly integrated into the VSS core platform, allowing users to manage watchlists and profiles in a single interface.

This integrated solution leverages VIVOTEK camera-side edge analytics to perform real-time facial feature extraction and matching, thereby optimizing overall server-side processing load.

Key Capabilities

- **Streamlined Profile Enrollment:** Add new identities directly from Deep Search results or seamlessly update existing profiles with new reference photos by clicking the "More" icon on any match thumbnail.
- **Cross-Platform Camera Enrollment:** Seamlessly deploy and synchronize facial recognition databases to supported cameras managed under VSS Substations and Core+ AI ND-series NVRs.
- **Flexible Profile Display UI Layouts:** Display and organize custom watchlists using a dynamic List View or Grid View toggle depending on operational preferences.
- **Instant Profile Activity History:** Leverage background data correlation to instantly generate a synchronized, chronological timeline of a profile's path across the entire facility by clicking on a profile.

Requirements

- Requires compatible VIVOTEK AI cameras running Deep Learning VCA Package version 7.16 with the required real-time Facial Recognition license. This feature is supported on VIVOTEK C-series 83 models and VIVOTEK V-series 87-V3, 91-V2, FE-V2, and CC series.
  Deep Learning VCA Package v7.16 is planned for a later release. Once available, the package for each supported camera model will be provided on the corresponding product page. The full compatibility list will be available in the Download Center after the package release.
- The feature supports deploying and synchronizing facial recognition databases to supported cameras managed by Core+ AI ND-series NVRs, including

ND9326P, ND9426P, ND9442P, and ND9542P, with firmware version 5.2 or later.

Firmware version 5.2 for each supported Core+ AI ND-series NVR model is planned for a later release and will be available on the corresponding product page.

Important Notes

- Setting up Digital Output (DO) triggers for VIVOTEK AI cameras is currently not supported directly through VSS. Operators must configure DO rules and triggers directly via the camera's local web configuration.
- Solution comparison:

Feature		Purpose-built FR Solution (FD9387-FR-V2 / V3 — Phasing out)	Native FR Solution (Deep Learning VCA Package 7.16 with real-time Facial Recognition license)
Deep Search	Attribute Search	—	Supported
	Re-Search	—	Supported
	Case Vault	—	Supported
List Management	Enrollment	Supported *(Note: Unable to enroll cameras under VSS substations and ND-series NVRs)*	Supported *(Note: Able to enroll cameras under VSS 1.6 substations and Core+ AI ND-series NVRs running firmware 5.2 or newer)*
	Event / Alarm	Supported	Supported
	Profile Search	—	Supported

- **User Permission: View Permission**

  VSS v1.6 adds View Permission to user permission management, allowing administrators to control which saved Views are visible to specific users or roles.

  Key Capabilities

  - Assign specific Views to users or roles.
  - Display only assigned Views after user login.

Changed Features

- **Improved Re-Search Behavior for ND-series NVR**
  - Improved re-search handling for supported ND-series NVRs. When an NVR reports that a search request is still in progress, VSS now continues waiting for the result rather than stopping the search after the previous 90-second timeout. This behavior applies to ND9326P, ND9426P, ND9442P, and ND9542P with firmware version 5.2.0.3 or later.
- **Extended Motion Alarm Re-Trigger Interval**
  - Increased the maximum Motion Alarm non-repeat trigger interval from 30 seconds to 120 seconds.
- **Improved Playback Time Selector Behavior**

- The Playback time selector now rolls over the full timestamp when adjusting seconds across minute or hour boundaries. For example, decreasing 15:00:00 now changes the time to 14:59:59, instead of cycling only the second field to 15:00:59.

Enhancements

- **Health Monitoring (BETA) Enhancements**
  - Support Daily Status Email Reports.
- **Standalone Player Enhancements**
  - Support layout playback
  - Allow users to drag exported video clips into the layout and start synchronized playback.

Platform and Security Updates

- Updated Qt Framework
  - Updated the Qt framework to version 6.11.0 to improve application framework compatibility and maintainability.
- Updated OpenSSL and sTunnel Components
  - Updated OpenSSL and sTunnel components to newer versions to maintain secure communication support and address third-party component security and maintenance requirements.

Deprecation Notices

- **Future Windows OS Support Changes**

  To maintain long-term product security, platform compatibility, and system reliability, VSS will update its supported Windows operating system policy in upcoming releases.
  VSS v1.7, scheduled for October 2026, will be the last VSS version to support Windows 10 and Windows Server 2016.
  Starting with VSS v1.8, scheduled for April 2027, VSS will not be able to install on Windows 10 or Windows Server 2016.

  Reason for the Change

  This change is part of the VSS platform modernization and long-term security maintenance.
  VSS v1.8 is planned to adopt a newer application framework and updated security components. These updates require alignment with newer Windows operating systems and are intended to help maintain compatibility, cybersecurity readiness, and long-term maintainability.
  In addition, Microsoft Windows Server 2016 reaches the end of Extended Support on January 12, 2027. Running VMS software on an operating system that no longer receives regular security updates may introduce security, compliance, and maintenance risks.

  Windows OS Support Roadmap

- Version 1.6 (Current Release): Windows 10 and Windows Server 2016 remain fully supported.
- Version 1.7 (October 2026): Final supported VSS version for Windows 10 and Windows Server 2016.
- Version 1.8 (April 2027): VSS will no longer be able to install on Windows 10 or Windows Server 2016.

Notice for NR-v2 Hardware Appliance Users

NR-v2 appliances include a built-in Windows 10 operating system. Due to hardware and platform limitations, the built-in operating system cannot be upgraded to a newer Windows version.

As a result, VSS v1.7 will be the final VSS software version available for the NR-v2 platform.

VSS v1.8 and later releases will not be compatible with or installable on NR-v2 appliances. NR-v2 systems may continue to operate on VSS v1.7 within the supported v1.7 lifecycle and maintenance scope.

Recommended Action

There is no immediate impact on existing VSS v1.6 systems.

Customers using Windows 10, Windows Server 2016, or NR-v2 appliances should begin planning their migration strategy in advance. For future VSS releases, we recommend moving to supported operating systems such as Windows 11 Pro/Enterprise or Windows Server 2022/2025.

Administrators should also review their deployment inventory, including VSS servers, clients, and hardware appliances, to ensure a smooth upgrade path before VSS v1.8.

Bug Fixed

- **Camera Management**
  - Fixed an issue where the DO status could display incorrectly after inserting a camera.
- **Playback**
  - Fixed an issue where Playback could display “No recordings” even though recording files existed in the recording folder under certain system environments.
  - Fixed an issue where playback could not be started after deleting Chinese characters from a camera name.
- **Video Export**
  - Fixed an issue where exporting videos in AVI format could fail when the camera name contained certain language characters.
  - Fixed an issue where exported AVI videos could have no audio.
- **Alarm Management**
  - Fixed an issue where multiple HTTP requests containing the “&” character could not

be saved in alarm actions.

- Fixed an issue where alarm names using full-width characters could become garbled after the 11th character.
- Fixed an issue where events could fail to trigger for cameras added after the 256th camera on a single VSS server.
- Fixed an issue where CMS alarms failed to trigger for a substation I/O Box action after a service restart.

- **Live View**
  - Fixed an issue where Live View could load slowly or temporarily show disconnection when users logged in with an AD account.
  - Fixed an issue where ONVIF cameras with unstable network connections could cause some cameras to appear disconnected in Live View.
- **Matrix**
  - Fixed a memory leak issue in Matrix during Live View patrol.
- **Multi-Monitor**
  - Fixed an issue where VSS Client windows could be displayed on the same monitor in certain multi-monitor environments, even when different default display monitors were configured at startup.
- **Audio**
  - Fixed an issue where cameras could have no audio in Live View or recorded video.
  - Fixed an issue where the VSS Client could crash after the Windows audio device was changed.
- **License Management**
  - Fixed an issue where column widths in the License table could not be adjusted.
- **Installation / Uninstallation**
  - Fixed an issue where Windows Firewall exception rules could fail to be removed when uninstalling VSS.

VSS 1.5.0.2160 – May 22, 2026

Release Summary

VSS 1.5.0.2160 is the final maintenance release for version 1.5, focusing on bug fixes, stability improvements, and security updates.
This release improves playback and export reliability, event/alarm handling, AD login performance, email notification compatibility, Data Magnet stability, and failover behavior. It also upgrades OpenSSL to enhance system security and compatibility with updated encryption standards.

Bug Fixed

- **Server**
  - Fixed an issue where the Plugin Server could intermittently crash during VSS login in certain scenarios.
- **Playback & Export**
  - Fixed an issue where playback streaming could unexpectedly disconnect when performing synchronized playback on a substation from the VSS Client.
  - Fixed an issue where synchronized playback could suddenly pause when the camera I-frame size was too large.
  - Fixed an issue where exported .avi video files did not include audio.
- **Event and Alarm**
  - Fixed an issue where the Event Server could occasionally freeze when many ONVIF cameras were disconnected and reconnected, or deleted and added again, which could cause Event and Alarm messages to be missing.
- **OpenSSL**
  - Upgraded OpenSSL to version 3.0.19 to improve security and address known vulnerabilities.
- **Microsoft Active Directory (AD)**
  - Fixed an issue where live view could load slowly or occasionally display a disconnection status when users logged in with an AD account.
- **VORTEX Connect**
  - Fixed an issue where motion detection events were not displayed correctly in the VORTEX App during Daylight Saving Time.
- **Email**
  - Fixed an issue where counting reports could fail to send email notifications due to authentication method changes on certain SMTP servers.
- **Data Magnet**
  - Improved Data Magnet stability when handling large-volume data transfers, preventing server restarts on certain systems caused by processing delays.
- **Failover**
  - Fixed an issue where the Redundant Server could unexpectedly exit Takeover status when the CMS Station restarted services during Substation Failover Takeover.

VSS 1.5.0.2110 – Feb 11, 2026

Release Summary

VSS v1.5.0.2110 is a bug-fix release addressing two key issues:

- VORTEX Connect service is being blocked by certain antivirus software, preventing proper execution.
- Cameras not appearing in the Device Tree after logging in with Microsoft Active Directory (AD) accounts.

This update also includes additional fixes across system stability, counting report, email handling, and integration behavior to improve overall reliability.

Bug Fixed

- **Camera**
  - Fixed an issue where certain VIVOTEK cameras, during reboot, could trigger their security mechanism and block the VSS Server IP address.
- **Microsoft Active Directory (AD)**
  - Fixed an issue where cameras were not visible in the Device Tree after logging in with a Microsoft AD account.
- **VORTEX Connect**
  - Fixed an issue where the VORTEX Connect service could be flagged as a potential threat by certain antivirus software, preventing it from running properly.
  - Fixed an issue where the VORTEX iOS App could not display NVR and VSS devices in specific regions.
- **Counting Report**
  - Fixed an issue where Monthly Reports failed to send correctly due to incorrect start and end time calculation logic.
  - Fixed an issue where counting camera data generated during the server downtime was not included in the Counting Report after the VSS Server machine was restarted.
- **Web Client**
  - Fixed an issue where cameras appeared as disconnected after logging in to the Web Client.
- **E-mail**
  - Fixed an issue where sending emails with large message sizes could intermittently fail.
- **Integration**
  - Fixed an issue where the RTSP API could fail to retrieve recordings in certain scenarios.

VSS 1.5.0.2000 – Jan 13, 2026

Release Summary

VSS v1.5.0.2000 is a feature release that introduces VORTEX Connect, enabling secure cloud connectivity between local VSS deployments and the VORTEX Cloud Platform. This release also enhances client connection behavior, improves login performance in large CMS environments, and boosts overall system resilience, along with multiple functional bug fixes across integrations, reporting, and peripheral devices.

New Features

- **VORTEX Connect**
  VORTEX Connect enables the secure bridging of local VSS stations and connected cameras to the VORTEX Cloud Platform through the VORTEX Connect service.
  - **Key Features**
    - Access VSS stations from the VORTEX Portal and VORTEX App.
    - View live video and recordings from cameras connected to a VSS server via the VORTEX Portal and App.
    - Receive selected events generated by the VSS station and connected cameras and use them to set up an alarm on the VORTEX Cloud Platform.
    - Restart VSS services remotely from the VORTEX Portal and App.
  - **Important Notes**
    - This feature is supported on all VSS editions.
    - Currently, only the VORTEX xLite plan is supported. The xLite plan allows up to 128 channels per organization.
      - If a single VSS station exceeds 128 channels, access via the VORTEX Portal will be unavailable due to plan limitations.
      - For detailed VORTEX xLite specifications and feature availability, please refer to the VORTEX plan page.
        https://www.vortexcloud.com/resource/pricing
    - Enabling VORTEX Connect requires creating a VORTEX xLite account and organization.
    - Each VSS station and substation must enable the VORTEX Connect feature individually and be bound to a VORTEX organization.
      - When VORTEX Connect is enabled on a CMS station, only cameras directly connected to the CMS station will be visible on the VORTEX platform; cameras from substations will not be displayed.
    - Enabling VORTEX Connect increases system resource usage, including CPU, RAM, database storage throughput, and network bandwidth. Please evaluate system capacity before enabling the service.

Changed Features

- Modified client behavior when the VSS Client loses connection to the VSS Server.
  - Previously, the client would automatically log out, requiring users to re-login, reconfigure view cells, and reload camera views.
  - In this version, the client retains its state during disconnection and remains logged in until the connection is restored or the user manually returns to the login page.

Improvements

- Improved client login performance when connecting to a CMS with a large number of substations.
- Enhanced system resilience by enabling automatic detection and restart of the unresponsive plugin server.

Bug Fixed

- **Client**
  - Fixed an issue where shortcut keys could become unresponsive when using multiple monitors with duplicate shortcut assignments.
- **Integration**
  - Fixed an issue that could cause Bosch or certain ONVIF cameras to appear as disconnected in Live View after being added to VSS.
- **iViewer**
  - Fixed an issue where a VSS server could not be added to iViewer if the VSS license is not sufficient.
- **Network Speaker**
  - Fixed an issue where VIVOTEK Network Speakers could play audio but failed to receive audio input.
  - Fixed an issue where ONVIF Network speaker information could still be updated successfully even when incorrect credentials were entered.
- **E-Map**
  - Fixed an issue where cameras bound to a GIS Map could not be opened from the Binding Map view.
- **Counting Report**
  - Fixed an issue where sending a Counting Report with no data could cause the Configuration Server to crash.
  - Fixed an issue where the next scheduled delivery time of Counting Reports was displayed incorrectly on the client.
- **User Account**
  - Fixed an issue where user accounts in email address format (user@domain) could not log in successfully.
- **User Account**
  - Fixed an issue where VSS Lite and Standard editions were unable to playback edge recording footage.

VSS 1.5.0.1020 – Nov 26, 2025

Release Summary

VSS v1.5.0.1020 is a maintenance release addressing several issues identified in the initial v1.5 deployment. This update improves overall system stability, resolves client login failures caused by ONVIF camera disconnections, corrects camera access issues affecting Active Directory (AD) accounts, and enhances the reliability of alarm actions.
Users running VSS v1.5.0.1000 are strongly recommended to upgrade to this version to ensure proper system functionality and prevent potential service interruptions.

Bug Fixed

- **System**
  - Fixed an issue where ONVIF camera disconnections could temporarily prevent clients from logging in to the server.
  - Resolved a problem where, after a server crash and immediate login attempt, the client might fail to detect the correct version and display a “Client Software Upgrade Notification” message incorrectly.
- **User Account**
  - Fixed an issue where users logging in with Active Directory (AD) accounts could not see cameras in the Camera Tree.
- **Alarm**
  - Fixed an issue where emails sent through the Alarm action “Send Email” displayed an error icon in the email body when the email included attachments.
  - Resolved an issue where triggering the “Send Mobile Notification” alarm action resulted in an Internal Server Error message.
- **Data Magnet**
  - Fixed an issue where searches with multiple query conditions in Data Magnet could fail to return matching results.
- **Joystick**
  - Fixed a joystick behavior where, when controlling a camera using a joystick, switching to another camera view without first releasing joystick control could cause the previous camera to continue moving.

Important Notice

- **Minimum OS Requirement Update**

  Please review the following OS requirements before deploying this version.
  - **Minimum OS Requirement for VSS Server / Client**
    - VSS Server and VSS Client can only be installed on Windows 10, version **1607** or later
  - **Minimum OS Requirement for VSS Matrix**
    - VSS Matrix can only be installed on Windows 10, version **1809** or later

VSS 1.5.0.1000 – Nov 12, 2025

Release Summary

VSS v1.5.0.1000 introduces key updates that enhance recording flexibility, system management visibility, and user experience.
This release focuses on dual-stream recording, edge recording, and multiple usability and stability improvements, ensuring better performance for both large-scale and distributed surveillance environments.

New Features

- **Edge recording configuration and playback**
  - Users can now configure edge recording on the camera and view playback of edge recording on the VSS client.
  - Support configuring the edge recording on the VSS client for the camera.
  - Support playback of the edge recording on the VSS client for the camera.
- **Playback video export as AVI format**
  - The user can now select the 3GP or AVI video format while exporting the video
- **Client login history**
  - The system can now store the login history, including the server IP list, allowing the user to select a previously used server for login.
- **Dual Stream Recording**

  A new recording mode that enables simultaneous recording of Main Stream (high resolution) and Sub Stream (low resolution) from each camera.
  This feature helps users maintain high-quality video for evidence while ensuring smooth playback in remote or limited network conditions.
  - **Key Features**
    - Enables simultaneous Main and Sub Stream recording.
    - Automatically selects the lowest available camera stream for Sub Stream.
    - During playback, operators can switch between Main Stream and Sub Stream.
  - **Additional Support**
    - Added compatibility for playback of ND-series NVR Sub Streams on models ND9x26P and ND9x42P running firmware v5.1 or later.
  - **Important Notes**
    - Seamless Recording and Activity Adaptive Stream are supported only on the Main Stream.
    - Sub Stream recordings are recycled together with their corresponding Main Stream recordings.
    - Backup functionality applies to Main Stream only (Sub Streams are not backed up).
    - Enabling Sub Stream increases system resource usage (CPU, RAM, storage throughput, storage space, and network bandwidth). For capacity planning, each

dual-stream-enabled camera should be counted as two channels.

- Due to hardware limitations on NR9581-V3 / NR9682-V3, the maximum number of Sub Stream channels depends on the total system load (CPU, RAM, 512 Mbps recording throughput, and 650 Mbps video network throughput).
  For example, with 4 Mbps Main Stream and 2 Mbps Sub Stream video, 128 Main Stream and 64 Sub Stream channels already reach ~640 Mbps, nearing the network throughput limit. Please evaluate the total bitrate before enabling Sub Stream at scale.

- **Support for Windows Aero Snap**
  - Supports Windows Aero Snap for quick and intuitive VSS Client window arrangement. Enhances usability for operators working with large screens.
- **Health Monitoring (BETA) Update**
  - **System Event Update**
    - Added new system events: Camera Online/Offline and Substation Online/Offline.
    - Each camera/substation now lists related system events in the device view.
  - **VPP Portal Integration**
    - Health monitoring events are now uploaded to the VPP Portal v1.1.
- **Network Audio – ONVIF Speaker Support**
  - Added a new “Brand” selection field in the Add Network Audio Device interface, allowing users to add VIVOTEK or ONVIF-compatible audio speakers.
    - Note:
      - ONVIF speakers only support Audio Out.
      - ONVIF speakers must support ONVIF Audio Backchannel and G.711 μ-law decoding.
  - In the CMS Server Live tab, the Network Audio Device Tree now displays audio devices under all substations. Users can broadcast audio to these substation devices directly from the tree.
- **Support for VCA Generic Event**
  - Added support for VCA Generic Event, a universal VCA event type used mainly by new or sample VIVOTEK VCA events for trial purposes.
  - Currently supported in Event Search and Playback Timeline Event Highlighting.

Changed Features

- **Simplified Dashboard Alerts**
  - VSS will now only display station disconnection alerts when the station is disconnected in the dashboard, rather than showing all camera disconnection alerts under the station.
- **Updated View Cell Drag-and-Drop Behavior**
  - For view cells that allow camera view dragging (e.g., Fisheye non-1O modes, or E-map view cells), dragging beyond boundaries no longer swaps positions with other

cells. This reduces unintentional user actions.
  - To move a Fisheye camera view cell, drag the black title bar instead.
  - To swap E-map view cells, drag the desired cell onto the target E-map cell.
- **Revised Camera Deletion Workflow**
  - When deleting a camera, VSS no longer prompts “Also delete from system permanently.” Cameras are now always removed from the system by default.
  - To remove a camera only from the logical tree (not the system), enter Logical Tree Edit Mode first and delete it from there.
  - This design change prevents user confusion between removal and permanent deletion.
- **Revised Login Lockout Behavior**
  - Previously, excessive failed logins locked the client login screen. The new mechanism locks the user account at the server level instead, improving security and consistency.
- **License Table Search and Sorting Support**
  - Support search by station name or message.
  - Support sorting by station name, camera count, purchased license, or unlicensed camera count.
- **Recording Group Camera Management Search and Sorting Support**
  - Users can now search cameras by name or IP address.
  - Cameras can also be sorted by name or IP address for easier management.
- **Touchscreen Support in Live View**
  - Added basic touchscreen operations in Live View:
    - Drag cameras to view cells
    - Swap view cell positions
    - Perform camera actions (PTZ, snapshot, bookmark, etc.)
  - On touch displays, users can tap once to show function buttons and tap again to hide them.
  - Multi-touch gestures such as pinch-to-zoom and fisheye digital zoom are also supported.
- **Updated Installation Process Defaults**
  - During upgrade installation, VSS now automatically detects whether Server or Client components were previously installed and selects only those for upgrade.
  - This prevents users from accidentally installing unwanted components.
- **Streaming Server Port Update**
  - The Streaming Server no longer uses port 4543. It now uses only HTTPS port 3443 and HTTP port 3454.
  - If an integration previously relied on port 4543, users can change to port 3443/3454 or manually re-enable it by editing: C:\Program Files (x86)\VIVOTEK Inc\VAST\Server\streamingserver.xml → set "listen_on_rtsp_port" to true, then restart VSS Service.

Improvements

- **Recording Recycle Options** – UI and Terminology Update
  - Updated the Recording Management > Recycle Options interface for better clarity.
  - Key Updates:
    - Replaced “Storage space is less than X%” with “Storage usage reaches X%”.
    - Replaced “Keep video X days” with “Video Retention Day – delete videos older than X days” (toggle control). The retention day defines the maximum possible storage duration, but does not guarantee recordings will last that long.
- **Redundant Server Version Check**
  - When adding a Failover Group, the system now checks if both the Active Server and Redundant Server versions match.
  - When adding a CMS Failover Station, version consistency is also verified. If versions differ, the operation will fail.
- **Import/Export Utility Interface Enhancement**
  - Updated the Import/Export Utility with clearer descriptions and guided setup steps for smoother configuration.
- **Full 64-bit Platform Upgrade**
  - All remaining 32-bit components in VSS have been upgraded to 64-bit architecture, improving performance and memory handling.
- **Updated Qt Framework**
  - Upgraded Qt framework from version 6.7.2 to 6.9.2, delivering enhanced security, stability, and long-term maintainability.
  - Note: This update also changes the minimum supported Windows versions for installation. For details, please refer to the Important Notice.
- **System Performance Enhancements**
  - Streamlined software flow of the login process for faster user authentication.
  - Reduced CPU usage and redundant event transmission when system events are triggered.
  - Fixed potential memory leaks caused by substation disconnections
- **Platform Support Update**
  - Support Windows Server 2025.
- **New Language Support – Hebrew**
  - Added Hebrew language to the user interface.

Bug Fixed

- **System/Server**
  - Fixed an issue where certain Camera Event messages caused the VSS Event Server to crash.
  - Fixed an issue where large Error Log files prevented the Streaming Server from starting, resulting in missing live view and recording failures.
  - Fixed an issue where database paths containing spaces caused a “Failed to write

database" error during the upgrading process to version 1.4.

- **Client**
  - Fixed an issue where large Local DB files could cause the Client application to freeze.
  - Fixed an issue where frequent alarm notifications caused the Client to crash due to repeated opening/closing of camera views.
  - Fixed an issue where the Client login took excessively long in systems with many Substations.
- **Camera**
  - Fixed an issue where newly added SC-series cameras could be blocked by Trend Micro when connecting to VSS.
  - Fixed an issue where a camera appeared disconnected in the Device Tree, even though its live view was still available.
- **Live View**
  - Fixed an issue where the camera live view was not displayed under specific conditions.
  - Fixed an issue where excessive WebSocket Server connections caused missing live view feeds.
- **Recording/Playback**
  - Fixed an issue where renaming cameras with Deep Search support could cause their recordings to become inaccessible.
  - Fixed an issue where recording stopped unexpectedly after upgrading to version 1.4 on certain system environments.
  - Fixed an issue where Seamless Recording recovery failed during Daylight Saving Time in certain time zones.
  - Fixed an issue where certain playback sessions stopped unexpectedly during video playback.
  - Fixed an issue where switching layouts and playback modes in a specific sequence caused the playback timeline to disappear.
- **E-Map**
  - Fixed an issue where adding a new camera during E-map editing displaced existing camera positions on the map.
  - Fixed an issue where "Show on E-map" alarm pop-up windows extended beyond the visible window area on E-map.
  - Fixed an issue where adding a camera to an E-map and clicking it prevented it from being dragged and placed correctly on the map.
- **Dashboard**
  - Fixed an issue where the recording days and remaining days displayed in the Dashboard Recording section were calculated incorrectly when bookmarks were present.
- **Matrix**
  - Fixed an issue where zooming in on a Matrix view cell caused the Matrix to become

unresponsive.

- **User Permission**
  - Fixed an issue where Substation disconnections could lead to incorrect user permission configurations.
- **Alarm**
  - Fixed an issue where alarm searches failed when the number of alarms was excessively high.
  - Fixed an issue where the EventTime macro in Alarm HTTP Actions displayed incorrect timestamps in regions with Daylight Saving Time enabled.
  - Fixed an issue where a large number of alarms degraded performance and caused the Alarm Settings panel to disappear.
- **Backup**
  - Fixed an issue where non-English user interfaces incorrectly displayed a “Cannot backup” message in the recording backup screen.
- **Health Monitor**
  - Fixed an issue where the Health Monitor generated excessive log entries under specific conditions.

Known Issue

- Some VIVOTEK cameras cannot support edge recording playback.
  - FD/IB9380 series
  - FD/IB9388 series
  - FD/IB9368 series
  - FD/IB9360 series
- VIVOTEK MA series cameras have limited recording profiles and cannot record all camera channels for edge recording.

Important Notice

- **Minimum OS Requirement Update**
  As part of VSS v1.5.0.1000, the underlying Qt framework has been upgraded to a newer version to strengthen platform security, stability, and long-term maintainability.
  This change also updates the minimum supported Windows versions for installation.
  Please review the following OS requirements before deploying this version.
  - **Minimum OS Requirement for VSS Server / Client**
    - VSS Server and VSS Client can only be installed on:
      Windows 10, version 1607 or later
  - **Minimum OS Requirement for VSS Matrix**
    - VSS Matrix can only be installed on:
      Windows 10, version 1809 or later

VSS 1.4.0.2300 – July 18, 2025

Release Summary

VSS 1.4.0.2300 is a maintenance release that enhances overall system stability and reliability for ongoing deployments.

This update includes key fixes to improve:

- CMS and Substation system performance
- Camera connectivity and memory leak in certain camera statuses
- User role and license table performance

These improvements are based on feedback from recent field cases and are designed to reduce operational friction and support efforts.

We strongly recommend all VSS 1.4 users upgrade to this version to ensure smoother daily operation and fewer support incidents.

New Features

No new features were introduced in this version.

Changed Features

No changes to existing features in this version.

Improvements

- **Alarm**
  - Updated the display logic of the event "SD card life expectancy detection" in Event Search and Timeline views. This event will now only appear when the Status = Trigger (indicating an SD Card problem), rather than showing both Normal and Trigger statuses. This change reduces clutter and makes actual issues easier to detect and respond to.

Bug Fixed

- **System**
  - Stopped writing certain unnecessary debug logs that were previously not recycled, preventing excessive disk space usage in the installation directory.
  - Fixed a memory leak that could occur when cameras become disconnected.
  - Fixed a memory leak that could occur when a user attempts to play a camera stream without the required permissions.
- **Client**
  - Fixed an issue where the VSS Client could unexpectedly crash and close under specific conditions under a CMS/Substations structure.
- **Camera**
  - Resolved a disconnection issue where behavior from the VSS system was flagged as

a network attack by updated rules in the Trend Micro IoT Security program running on certain cameras.

- **Substation**
  - Fixed an issue introduced in v1.3.0.5100 and later, where unstable network conditions increased the likelihood of Substation disconnections from CMS, affecting Dashboard availability.
  - Fixed an issue where, if users add a second-tier Substation to the CMS first and then add a third-tier Substation to the second-tier, the third-tier Substation may not appear in the CMS device tree.
- **Playback**
  - Fixed an issue where adding a new camera to a view cell during Synchronized Playback would incorrectly display “Disconnected” on the view cell.
- **License**
  - Resolved a problem where the License settings page became unresponsive or failed to display correctly when handling a significant number of Substations.
- **User Permission**
  - Fixed a bug where the Camera filter did not work properly when assigning camera permissions to a user in versions after v1.3.0.5100.
  - Fixed a timeout issue when updating user roles with a significant number of selected devices.
  - Resolved a UI freeze that could occur when selecting a significant number of devices in the User Role interface.
  - Fixed occasional UI lag when clicking the Update Role button after making permission changes.
- **ONVIF Support**
  - Fixed an issue with multi-channel ONVIF cameras or encoders, where streams beyond the first channel would display incorrect camera information, such as resolution.
- **Alarm**
  - Fixed an issue where configuring the alarm action "Set DO Status" for multiple Digital Outputs could result in one DO’s value being incorrectly overwritten by another’s.
- **E-Map**
  - Fixed an issue where Substation E-Maps might not appear in the E-Map Tree view.

Known Issue

- On firmware version 4.8.0.2 of ND-Series NVRs, Scene Search – Line Crossing Detection may show inconsistent search results compared to VSS 1.4.

Important Notice

- **Remote Access Component in Health Monitoring Updated for Improved Compatibility**

The Remote Access option of the VIVOTEK Service Management feature in the Health Monitoring function has been modified to reduce potential antivirus conflicts. The required component is no longer bundled in the installation package and will now be downloaded automatically only when the Remote Access option is enabled.
For systems upgrading from version 1.4.0.1100, the old component will be removed and reinstalled as the Remote Access option is enabled.

VSS 1.4.0.2000 – May 13, 2025

Release Summary

VSS 1.4.0.2000 delivers key bug fixes to improve playback reliability, device connectivity, and system stability. It also updates the Remote Access feature in Health Monitoring to improve compatibility by changing how its component is installed.

New Features

No new features were introduced in this version.

Changed Features

No changes to existing features in this version.

Improvements

- Updated Remote Access in Health Monitoring for better antivirus compatibility. The required component is now downloaded on demand when the feature is enabled.

Bug Fixed

- Fixed disconnection issues between ND-Series NVRs and VSS under high event load.
- Resolved “No permission” errors during synchronized playback on cameras under ND-Series NVRs.
- Resolved incorrect playback start time when using camera time in synchronized playback.
- Fixed recording interruptions caused by the stitch function on counting cameras (e.g., SC9133 series).
- Resolved early disconnection issue for SC9133 after initial connection.
- Corrected scheduled audio playback timing during Daylight Saving Time transitions.
- Fixed potential service startup failure after upgrading to v1.3.0.5150.
- Addressed occasional failures in updating user roles.
- Resolved Plugin Server crash during login if alarms are triggered at the same time.
- Fixed E-Map sync failure between CMS and Substation after a disconnection.

Known Issue

- On firmware version 4.8.0.2 of ND-Series NVRs, Scene Search – Line Crossing Detection may show inconsistent search results compared to VSS 1.4.

Important Notice

- **Remote Access Feature in Health Monitoring Updated for Improved Compatibility**
  The Remote Access feature has been modified to reduce potential antivirus conflicts. The required component is no longer bundled in the installation package and will now be

downloaded automatically only when the feature is enabled.
For systems upgrading from version 1.4.0.1100, the old component will be removed and reinstalled as needed.
Please ensure antivirus software allows the download and execution of this component.
Further enhancements are planned in future versions.

VSS 1.4.0.1100 – Apr 01, 2025

Release Summary

This is the first release of VSS version 1.4, introducing powerful new features and upgrades focused on investigation efficiency, system stability, and expanded compatibility.
Key highlights include:

- License Plate Search integrated with Deep Search and supported AI cameras.
- Case Vault 2.0 for centralized case management and professional report generation
- Client Manual Recording from Live View with local clip storage.
- Health Monitoring enhancements with new alert types and remote access via the Partner Portal.
- ONVIF Profile T support for improved ONVIF camera integration and settings control.
- List Management enhancements with batch operations and CSV import guidance.

This release strengthens investigative tools, boosts operational efficiency, and delivers greater reliability for enterprise deployments.

New Features

- **Case Vault 2.0 (Pro Edition Exclusive)**
  Case Vault is now a standalone module, elevated from a sub-feature within Deep Search. Users can organize evidence by case, manage multiple cases, and generate polished incident reports in one unified interface.
  The original Case Vault under Deep Search now functions as a playlist-style tool to collect and sort footage during investigations.
  - Key Features
    - Add footage from both Deep Search results and Bookmarks into designated Cases.
    - Cases are stored on the server centrally and can be accessed from multiple clients.
    - Auto-generated reports with editable fields and thumbnails for visual reference.
    - Export Case reports as PDFs or video packages.
  - Compatibility & System Requirements
    - Requires Administrator privileges.
    - CMS and all substations must run the same VSS version.
    - Case metadata (best shots, screenshots, descriptions, etc.) is stored in the server's database folder for persistent access.
    - Footage added to Case Vault is protected from recycling but will be lost if the recording directory is manually deleted.

- For cameras managed by ND/NV-series NVRs, footage may be deleted based on local storage rules.

- **Deep Search – License Plate Search (Beta)**

  This feature enhances Deep Search – Vehicle Search by incorporating the new Vision Object Analytics (VOA) attribute—license plate—on select VIVOTEK AI cameras with Deep Learning VCA package v7.14 or later for license plate capture. Compatibility details will be available on the product page at launch.

  - Key Features
    - Supports complete or partial license plate number searches and a fuzzy search feature to find similar vehicle results.
    - Allows users to Re-Search for identical license plates (Pro Edition Exclusive) to quickly locate identical vehicle results by clicking on a vehicle's full-view image displaying the plate number.
    - Supports Add to Case Vault for generating incident reports.
  - Important Notices
    - This new AI camera capability for license plate capture is currently in Preview and Beta release for testing and refinement. VIVOTEK has deployed a general license plate detection and alphanumeric Optical Character Recognition (OCR) technology for beta testing in countries that use alphanumeric license plates. Capture rate and accuracy refinements are necessary for each region before the official launch. The beta-release package, including detailed information and a test guide, will be available on the "VIVOTEK website – AI Lab Program" in May 2025. For an early preview now, please contact VCA.support@vivotek.com.
    - For optimal results, testing should be conducted in drive lanes and vehicle entrance areas with ambient lighting and low vehicle speed. Factors such as motion blur, low resolution, glare, or obstructed plates may result in misread characters or incorrect identifications. Users should refer to the test guide for best practices.
    - VIVOTEK AI camera models available for beta testing and feature preview include the VIVOTEK C Series – 83 Series and the VIVOTEK V Series – 87-V3, 91-V2, FE-V2, and CC Series.
    - The feature supports searching across supported VIVOTEK AI cameras under supported VIVOTEK ND series NVRs with firmware 4.8 or later.

- **Client Manual Recording**
  - Start and stop manual recording from the VSS Client during Live View.
  - Recorded clips are saved locally and viewable immediately.

- **Health Monitoring Enhancement**
  - Add two alarm types to the notification setting: Login Failure Alert and Recording Error Alert.
  - New dashboard sections: PoE status and Notification event (initially supporting VSS login and recording failure only)

- Support remote access and monitoring via the VIVOTEK Premium Partner Portal. Please refer to the introduction page for further details about this feature.
- Health Monitoring Service Version: 1.1.0.324

- **Support ONVIF Profile T for ONVIF camera**
  By integrating the ONVIF Profile T, VSS now supports more configuration options for ONVIF Profile T-supported cameras, providing users greater flexibility in device management and project deployment.
  - Support image setting for ONVIF camera.
  - Support network setting for ONVIF camera.

Changed Features

- **Deep Search**
  - The installer process now includes the option to enable or disable the use and storage of license plate captures. This option will only appear during a fresh VSS installation and not during upgrades.
  - The Deep Search settings now include a new switch for using and storing license plate captures. When upgrading from a prior VSS version, the default setting will be enabled, while for a fresh installation, it will follow the configuration set during the installer process.
  - 'Scene Search - Line Crossing Detection' supports 'All,' 'Outside-to-Inside,' and 'Inside-to-Outside' directional filtering for more precise event searches.
- **VCA Metadata Display Information on Live View and Playback**
  - Adds new Face Box and Object Type Icon display options, allowing users to toggle the visibility of face and object type detection.
  - Aligns with the VCA web interface to use consistent display item terminology, ensuring clear and accurate information presentation across both products.
- **Alarm Management**
  - Added more tags to Alarm Action “Send HTTP requests,” such as Camera ID and Station ID of triggering event.

Improvements

- List management Usability
  - Batch delete enrollment cameras and members.
  - CSV import includes tooltips for better guidance.
- Deep Search Efficiency
  - Adds face filter in Deep Search – People Search, allowing users to quickly identify and refine face-related search results, improving investigation efficiency.
  - Optimizes Re-Search performance for faster results, making it up to 8x faster when analyzing the same amount of data over an 8-hour search range.
- Improved usability for submitting feedback and bugs.

- Block installation on unsupported Windows versions.
- All VSS x86 Servers will be upgraded to x64 architecture in this version.
- Web Client will now use the same port as the user's VSS Client instead of defaulting to 3443.
- Added Log Viewer tool LogViewer.exe under: \Program Files (x86)\VIVOTEK Inc\VAST\Client\VSS folder.

Relevant module and package information

- Device Pack Version: 5.9.502
- Health Monitoring Service Version: 1.1.0.324

Bug Fixed

- **Camera**
  - Fixed an issue where connecting certain types of cameras could cause the Configuration Server to crash and restart, resulting in temporary recording interruptions.
  - Fixed an issue where the "Update Device" function did not affect ONVIF cameras.
  - Fixed an issue where zooming in or out on a fisheye camera view cell would cause Fisheye Dewarp coordinates to shift, resulting in display errors in Live View.
- **Installation**
  - Prevented users from installing VSS in the root directory of a disk, as doing so would cause the application to fail to start.
  - Blocked upgrades of NR Series NVRs that have not been configured with a database path to prevent system errors.
- **IO & Alarm**
  - Fixed an issue where DI/DO status might become incorrect after an IO Box reconnects following a disconnection.
  - Fixed an issue where the "Send HTTP requests" Alarm Action would fail if the content included the '&' character.
- **NAS**
  - Fixed an issue where the VSS Server could fail to record to a NAS if the connection was restored slowly after a hardware reboot.
- **Multicast**
  - Fixed an issue where incorrect IP address settings in Multicast could cause the Streaming Server to crash.
- **Data Magnet**
  - Fixed an issue where using the Data Magnet search function to query a large volume of data under low memory conditions could cause the Plugin Server to crash.
- **Counting Report**
  - Fixed an issue where using certain characters in the Counting Report function’s area names would prevent JPG attachments from being included in the sent email.

Known Issue

- On firmware version 4.8.0.2 of ND-Series NVRs, Scene Search – Line Crossing Detection may show inconsistent search results compared to VSS 1.4.

Limitation

- N/A

Important Notice

- For ND-Series NVR users:
  If your NVR is added to VSS as a substation via VIVOCloud, do not upgrade to firmware v4.8, as it removes VIVOCloud support.
  To continue using this feature, remain on firmware v4.7 or earlier.
- Microsoft Windows Server 2012 is no longer supported.

VSS 1.3.0.5150 – Feb 13, 2025

Release Summary

This update is a bug-fix release for VSS v1.3.0.5100. It resolves two critical issues that may disrupt normal operations. We recommend that users who have encountered these issues and those who originally planned to upgrade to v1.3.0.5100 install this update, since it includes all the enhancements from the previous version.

Bug Fixed

- Fixed an issue where the playback functionality became unavailable after upgrading from the VAST/VAST2 X86 Server to VSS v1.3.0.5100.
- Fixed a memory leak issue when a camera connecting to VSS via the HTTPS protocol could not establish a WebSocket connection due to camera-side issues (e.g., an expired HTTPS certificate or disabled VCA package).

Known Issue

- The screenshot function used in alarm actions, such as sending emails, may fail, resulting in screenshots with no image displayed. This issue will be fixed in version 1.4.

VSS 1.3.0.5100 – Dec 27, 2024

Release Summary

This maintenance release of VSS 1.3 delivers essential bug fixes and introduces support for VIVOTEK's new Thermal and MA series cameras. Users experiencing previously identified issues or integrating these cameras are encouraged to upgrade to enhance system stability and functionality.

New Features

- **New Thermal Camera Event Support**
  - Added support for thermal camera events, including:
    - Event Search
    - Event-only recording
    - Alarm triggering based on thermal camera events
  - Supported VIVOTEK camera models:
    - **TB9332-E series**: Firmware version 3.6.1503.1006.381.0.6.12.12 or later
    - **TB9333-E series**: Firmware version 3.6.1305.1006.381.0.8.12.12 or later
    - **TT9333-E series**: Firmware version 3.6.1305.1006.381.0.8.12.12 or later
- **VCA Event and Object Metadata Support for New MA Cameras**
  - Added support for:
    - Event Search
    - Event-only recording
    - Alarm triggering based on VCA events
    - Deep search functionality
  - Supported VIVOTEK camera model:
    - **MA9311-EHTV**: Firmware version MA9311-VVTK-1.2403.61.01a or later

Changed Features

- **Discontinued Support:** Microsoft Windows Server 2012 is no longer supported.
- **Enhanced Playback Timeline:** The playback timeline now supports displaying camera footage from different recording groups on the same timeline. This enhancement is available only in the playback timeline under the "Live" tab. Support for event indicators, bookmarks, and synchronized playback is limited to the timeframe of the current recording group.
- **Event Recording Mechanism Update**: Adjusted the stop time mechanism for the VCA event "Restricted Zone" to ensure accuracy.

Relevant module and package information

- Device Pack Version: 5.9.494

- Health Monitoring Service Version: 1.0.1.830

Bug Fixed

- **General System**
  - Removed the unused driver program instdrv.exe from the installation path.
  - Fixed a timeout issue that caused failures when exporting logs from Analytics Report.
  - Fixed UI issues when operating some functions on a secondary screen in Windows.
- **Live View / Playback**
  - Fixed an issue where digital zoom and fisheye dewarp caused jagged edges in live view.
  - Fixed a memory leak that occurred during reverse playback of footage.
- **User Management**
  - Fixed an issue where camera permissions for disconnected substations were not applied correctly during user role updates。
- **License**
  - Improved the operational speed of the license table in environments with numerous substations.
  - Fixed performance degradation in the License Tab when both the Dashboard and License Tabs were open simultaneously.
- **Substation**
  - Fixed an issue where some cameras in the substations did not appear in the CMS device tree.
  - Fixed a crash in the plugin server during CMS updates of the substation's information in specific scenarios.
  - Corrected an issue where ND substation cameras were incorrectly displayed as offline in the CMS device tree.
- **Alarm**
  - Fixed a display issue with the "people running detection" alarm trigger in the alarm editing interface.
- **Counting Report**
  - Corrected an issue where changes in VCA rule name casing prevented data from appearing in the Counting Report.
- **Data Magnet**
  - Fixed a memory increase issue when continuously storing data that matched Data Magnet rules.
  - Corrected a cross-date data storage failure for LPR cameras in specific scenarios.
- **Integration**
  - Fixed a memory leak caused by repetitive use of the VSS API to retrieve the VSS device tree status by third-party systems.
  - Corrected misidentification of certain PoE types.

Known Issue

- N/A

Limitation

- N/A

Important Notice

- Microsoft Windows Server 2012 is no longer supported.

VSS 1.3.0.1100 – Sep 30, 2024

Release Summary

This is the first release of VSS version 1.3, which introduces significant enhancements and new features. Key highlights include:

- CMS-Driven Remote Software Upgrade for VSS Substations (Pro Edition).
- List Management for VVTK FR/LPR cameras (Beta, Pro Edition).
- Web Client with camera live view and control.
- Health Monitoring with new device locating features (Beta, Pro Edition).
- Upgraded software interface framework to Qt 6 for better interface compatibility.
- Enhanced security with OpenSSL 3.0 and OpenVPN 2.6.10 upgrades.

This release aims to improve system management efficiency, expand functionality, and enhance overall performance and security.

New Features

- **CMS-Driven Remote Software Upgrade for VSS Substations (Pro Edition Exclusive)**
  Enables seamless remote software upgrades for VSS substations (including VIVOTEK NR-series NVRs, CMS Failover Servers, and Substation Failover Servers) from CMS station in VSS Pro edition, improving efficiency and reducing manual effort.
  - Notice:
    - This feature is handy for systems managed by a CMS station, ensuring that all substations match the version of the CMS station after it is upgraded. If the substation has a client installed, it will also be upgraded to match the CMS station version.
    - To maintain system-wide version consistency, when a client logs into a server with a newer version, you can download the installer from the server and manually run the upgrade.
    - The CMS station can only upgrade the substations directly beneath it. To upgrade third-layer substations, you must log in to the second layer and upgrade them from there.
    - This feature is supported from version 1.3 onwards. You must manually upgrade your entire system (both CMS station and VSS substations) to version 1.3. After this, you can use the remote upgrade feature for version 1.3.X or later.
- **List Management (Beta; Pro Edition Exclusive)**
  Provides centralized list management for VVTK FR/LPR cameras, allowing users to enroll the list with multiple cameras and set the list as an alarm trigger in the VSS Pro edition.
  - Notice:
    - Users must first add VIVOTEK's FR or LPR cameras to VSS and configure the

data source in Data Magnet.

- Users must also configure the VADP Package specific to FR and LPR cameras to ensure data is correctly sent back to the VSS Server.
  - When configuring the VADP settings for FR cameras, users must enter "VSS_List" in the VSS event push settings category field.
- Support VVTK Camera models:
  - FD9387-FR-v2: FW version: 1.2101.37.01m or later; VADP Package version: 1.00.82 or later.
  - FD9387-FR-v3: FW version: 1.2302.37.10c or later; VADP Package version: 1.00.82 or later.
  - IB9387-LPR-v2 (N)/IB9387-LPR-W-v2(N): FW version: 1.2101.37.01m or later; VADP Package: 4.8.1.39 or later.
  - IB9387-LPR-v2 (V)/IB9387-LPR-W-v2(V): FW version: 1.2101.37.01m or later; VADP Package: 1.1.15 or later.
  - IB9387-LPR-V3 (N) series: FW version: 1.2302.37.02d or above; VADP Package: 4.8.1.39 or above.
  - IB9387-LPR-V3 (V) series: FW version: 1.2302.37.02d or above; VADP Package: 1.1.15 or above.

- **Web Client**

  Provide a web-based client with the group view and saved view from the VSS client, allowing the user to control the camera in live view.
  - Notice:
    - Users must first create a user account in the VSS client.
    - Support Chrome/Edge only.
      - Chrome browser version 128.0.6613.114 or later
      - Edge browser version 128.0.2739.54 or later

- **Health Monitoring (Beta; Pro Edition Exclusive)**

  Introduces a Health Monitoring service version v1.0.1.830 that includes features for easier device identification and system monitoring:
  - Adds a feature that makes the NVR emit beeping sounds to help locate the device.
  - Adds a feature that makes the LED lights on the PoE switch blink for easier identification.
  - Add a report feature allowing users to search and export a one-month device status history.
  - Notice:
    - Health Monitor service uses port 5056. Ensure this port is open for remote access in the firewall.
    - The user interface is available in English only.
  - Compatibility:
    - Supported VSS/NR substations version: VSS v1.2.0.3300 or later.
    - Supported ND series NVR substations version: ND v4.6.0.4 or later.

- Supported PoE models: VIVOCAM L2 Managed PoE Switches (e.g., AW-GEV-108A-130, AW-GEV-288A-370).

Changed Features

- The Playback interface allows users to switch between recordings from different recording groups.
- The display name of NR-series NVR models has been updated to the format “VSS Pro (NRXXXX-XX)” for consistency with other VIVOTEK applications.

Improvements

- **Qt 5 to Qt 6 Framework Upgrade:**
  Upgraded software interface framework from Qt 5 to Qt 6 for better interface compatibility, including:
  - Support for high-DPI displays, delivering smoother text and icons and enhanced camera view cell quality on 4K+ resolution displays.
  - Removed the "DirectX (ANGLE)" display compatibility option in the Display Setup tool, as it is not supported in Qt 6.
  - Fixed a black screen issue in VSS live view when “No resampling” was set in the image sampling method on some VM platforms.
- **Security Upgrades:**
  - OpenSSL: Upgraded from version 1.1 to 3.0 for enhanced system security.
  - OpenVPN Update: Upgraded from version 2.4.8 to 2.6.10, providing enhanced reliability and security. This optional update may disconnect some OpenVPN connections between ND series NVR and VSS CMS station. After updating, check the connection status in the VSS device tree and re-enable the connection from “VMS remote connection” settings on each NVR device if needed.
- **Open Source Software Notice:**
  Updated the “Open Source Software Notice” and added it to the “About” page.
- **User Management**
  - Improved the device multi-selection behavior in the Users and Roles feature to prevent users from accidentally deselecting previously selected devices during the operation.
- **View Cell Display Enhanced Mode**
  - Enjoy improved visual clarity with the enhanced view cell display mode. This feature enhances contrast for a better viewing experience but may cause overexposure in certain scenes.

Bug Fixed

- **Health Monitoring**
  - Fixed an issue where certain operations may cause the health monitoring page to reload.

- Fixed an issue where the redundant server information shown on health monitoring was incorrect.
- Fixed an issue where the camera's recording mode from substations was not displayed correctly.

- **Counting Report**
  - Fixed an issue where multiple duplicate emails were sent for the weekly report in certain situations.
  - Fixed a problem where camera previews from substations were not visible in the Counting Report.
  - Fixed an issue where scheduled VCA reports sent via email had no data in certain situations.
- **License**
  - Fixed an issue in version 1.2.0.3300 where VAST2 licenses could not be converted to VSS licenses while migrating VAST2-embedded NR/NS devices.
  - Fixed an issue where adding cameras without a MAC address caused license calculation errors.
  - Fixed an issue where license data could become corrupted during installation repair or upgrade after hardware changes.
  - Improved performance of the License table when the Dashboard and License Tab were used simultaneously.
- **VCA**
  - Fixed an issue where Deep Search could crash under certain conditions.
  - Fixed a crash issue in specific computer environments due to unsupported instruction sets used by Smart Search I.
- **Data Magnet**
  - Fixed an issue where search results in Data Magnet were not fully sorted when sorting the results.
- **Failover**
  - Fixed an issue where CMS could not display the recordings of some cameras under substations after failover was activated。
- **Dashboard**
  - Fixed an issue where the total camera count on the CMS Dashboard was incorrectly calculated under specific CMS/Substations structures.
  - Fixed an issue where devices were shown as disconnected on the Dashboard when they were connected.
  - Fixed an issue where the snooze function did not apply to cameras in certain scenarios.
- **VSS Client**
  - Fixed an issue where multiple VSS clients logging into the server simultaneously could cause inaccurate camera connection/disconnection status updates.
  - Fixed an issue where the auto-login setting in VSS Client was turned off after a failed

login.

- **Live View/Recording/Playback**
  - Fixed an issue where recordings added to Recording Group Storage using "Restore recordings from this path" could not be played back in certain conditions.
  - Fixed an issue where taking screenshots in 1R view of a Fisheye camera could sometimes produce screenshots in 1O view instead.
  - Fixed an issue where the "Export Clips" feature could not be used when the Live Tab was displayed on another monitor using the "Send to Screen" function.
- **Device**
  - Fixed an issue where configuring cameras under VSS sometimes resulted in "Failed to apply" or "VSS.exe is not responding" errors.
  - Fixed an issue where adding cameras under specific DVR models could cause inaccurate camera connection status.
- **Log**
  - Fixed an issue where duplicate VCA events appeared in logs under certain conditions.
  - Improved log search performance when dealing with large quantities of logs.
- **Email**
  - Fixed an issue where email notifications failed to send due to an SMTP server crash in certain situations.

VSS 1.2.0.3300 – July 24, 2024

Release Summary

This release introduces a new health monitoring feature and enhanced view cell display mode, delivering a range of improvements and bug fixes to optimize system performance and user experience.

New Features

- Health Monitoring (Beta; Pro Edition Exclusive)
  - Gain valuable insights into the health of your system with a new bundled background service that collects data from cameras, VSS stations, substations, and managed PoE switches.
  - A web-based interface provides a clear view of this critical information, allowing you to proactively identify and address potential issues.
  - Accessing and enabling the Health Monitoring service requires Administrator permissions.
  - Health Monitor service uses port 5056. For remote access, ensure this port is open in the firewall.
  - Health Monitoring Service version: v1.0.0.705
  - The user interface is currently only available in English.
  - Compatibility:
    - Supported VSS/NR substations version: VSS v1.2.0.3300 or above.
    - Supported ND series NVR substations version: ND v4.6.0.0 or above.
    - Supported PoE models: VIVOCAM L2 Managed PoE Switches, such as AW-GEV-108A-130 and AW-GEV-288A-370.
  - More information and documentation available at: https://www.vivotek.com/vast-security-station#support
- View Cell Display Enhanced Mode
  - Enjoy improved visual clarity with the enhanced view cell display mode. This feature enhances contrast for a better viewing experience but may cause overexposure in certain scenes.

Changed Features

- Mobile NVR Wi-Fi Backup (Beta; Pro Edition Exclusive)
  - Improved backup efficiency: The updated mechanism ensures that only one backup occurs for alarms with the same trigger source, even if multiple alarms are activated simultaneously.
- License Invalid Process
  - Streamlined license management. If a license becomes invalid due to hardware changes, VSS will allow you to log in to a page where you can export a license request (REQ) file containing the latest hardware fingerprint. This file can then be

submitted to the support team for evaluation.

Improvements

- Improved error messages for failed Substation additions, making it more explicit for users to understand the reasons for failure.
- Adjusted the expiration time of SSL certificates to enhance security.

Bug Fixed

- Resolved an issue that prevented the CMS failover server from returning to Standby status after failover, potentially causing Substation and CMS server disconnection.
- Fixed an ND-series NVR issue that caused the system to misidentify substation versions and display warning messages upon login.
- Fixed an issue where, in live view, switching from one camera to another before the first camera's feed loads might result in a perpetual loading screen.
- Fixed an issue where Shepherd could not find the installed VSS version NR-series NVR.
- Fixed an issue where, if multiple clients logged into the same server simultaneously, only one client might receive camera status change notifications (e.g., disconnection, connection, recording start).
- Fixed an issue where multiple clients operating the same IP Speaker might experience connectivity issues.
- Resolved the APP “iViewer” hanging issue that might have happened during the VSS server login.
- Fixed an issue where the Client would display a successful setup message when NAS is used as Storage in the backup function, but NAS permissions were not successfully obtained, resulting in an actual failure.
- Fixed an issue where images in the exported Counting Report might be cropped in certain situations.
- Fixed an issue where removing a camera from one of two recording groups it was added to might result in missing playback.
- Optimized Dashboard layout to prevent camera count information from obscuring when managing many stations.
- Fixed an issue where the warning message filter on the Dashboard might be unusable when the number of Stations is high.
- Fixed an issue where the Dashboard would not display camera disconnection messages under certain conditions.
- Fixed an issue where the version of the redundant server would incorrectly display as VSS Lite instead of VSS Pro when the redundant server takes over a failed Substation.

Known Issues

- For VAST2-embedded NR/NS devices: This version cannot convert VAST2 licenses to VSS licenses. To upgrade to VSS, please first use VSS

v1.1.0.2000 or v1.2.0.2000 and then update to this version.

- Certain operations may cause the health monitoring page to reload.
- Information of the redundant server shown on health monitoring is incorrect.

VSS 1.2.0.2000 – Apr 01, 2024

Release Summary

This is the first release of VSS 1.2, a milestone update featuring the innovative Case Vault for Deep Search, enhanced PoE Switch integration, and PTZ functionality enhancements, alongside significant system improvements, spec changes, and bug fixes. This update is essential for all users seeking to elevate their VSS experience with cutting-edge capabilities.

New Features

- Case Vault for Deep Search (Pro Edition Exclusive)
  - A new functionality within Deep Search allows users to organize and analyze desired footage by adding it to Case Vault.
  - Videos in Case Vault are arranged chronologically, with their locations displayed on the E-Map during sequential playback for review.
  - This feature also supports automatic PDF report generation and bulk video export based on the Case Vault list.
- PoE Switch Integration
  - Offers support for embedded PoE Web, including PoE on/off, Topology view, and traffic monitoring.
- PTZ Enhancements for VIVOTEK PTZ camera
  - Support the Area zoom within view cell.
  - Support the selection of different preset points for advanced smart tracking within view cell.
- Dashboard Enhancements
  - The storage usage panel now shows estimated remaining recording days and total recorded days for each recording group.
  - A warning message appears on the dashboard when the sum of remaining and total recorded days falls below the set retention period in recycle options.
  - Support for snooze and refresh options in warning messages related to disconnections.
- E-Map Enhancements
  - It supports importing E-Maps created at substations from CMS.
  - E-Maps imported from Substations are usable in live view, alarm, and E-Map features within CMS but cannot be edited within CMS.
- Mobile NVR Wi-Fi Backup (Beta; Pro Edition Exclusive)
  - Enables Mobile NVRs to back up specific Alarm recordings near a Wi-Fi Access Point connected to the same domain as the VSS CMS server. Currently, only System DI-triggered alarms are supported.

Changed Features

- VSS Std Edition SPEC Change
  - Support adding ND series NVRs as substations via VIVOCLOUD.
  - The limitation of the total connected camera adjusts from 128 channels to 256 channels.
  - The free license of cameras connected under ND series NVRs increases from 128 to 192 channels.
  - Support VSS Embedded NVR Camera License for cameras connected under ND series NVRs.
- Deep Search Enhancements
  - For a better user experience, VSS introduces a new capability for the Deep Search function to prevent functionality irregularities among different software/firmware version combinations of clients, servers, and substations. This change will result in no search results for the Deep Search function if:
    - VSS clients, servers, and substations are not on the software version 1.2 or later.
    - ND series NVRs are not on the firmware version 4.4.0.4 or later.
  - The Re-Search function supports searching across cameras under supported VIVOTEK ND series NVRs with firmware 4.5 or a later version.
    - It is suggested not to Re-Search for more than ten cameras per ND series NVR.
- License Calculation Method Update
  - The method for calculating licenses for VIVOTEK MA series cameras connected to ND and NR series NVRs has been updated. Each MA camera device now counts as a 1ch camera license, aligning with those directly connected to the VSS Station.

Improvements

- Added shortcuts for "Analytic Report" and "Standalone Player" applications to the Windows Start menu program.
- Introduced an API to close alarm notifications, E-Map tab, and Alarm tab.
- Seamless Recording now supports Deep Search metadata.
- The live view displays related to the Camera VCA package rule, and FOV updates are now automatically updated rather than manually.
- Optimized CGI performance for fetching Snapshots via API.
- Enhance the method for retrieving deep search screenshots from ND by switching from mainstream screenshots to sub-stream and reducing screenshot capture frequency.

Bug Fixed

- Fixed an issue where only stream one was available for ONVIF cameras added using the "Add as offline camera" method.
- Corrected the timing of bookmarks generated by the "Unattended object detection" alarm trigger, which was previously incorrect.
- Resolved a problem where exporting video would fail when the server uses port

forwarding.

- Fixed a bug where the backup function would fail if the storage path contained non-English characters.
- Addressed issues with exporting camera recordings from ND NVR being more prone to failure under limited bandwidth conditions.
- Fixed a display issue where VCA counting data would not appear on the FD8166A-S live view.
- Resolved a problem where the tracking block would not display in SC8131's live view and playback.
- Corrected an issue where cameras supporting deep search would sometimes be incorrectly shown as not supporting deep search after a camera reboot.
- Fixed a login timeout issue that could occur when the client attempted to log into the server during times of high system activity.
- Resolved a problem where some cameras could not be configured after migrating from VAST2.

Known Issues

- VSS does not support use on Windows with the time zone set to UT+13:00 to +14:00.

VSS 1.1.0.2000 – Jan 17, 2024

Release Summary

This maintenance release of VSS 1.1 focuses on bug fixes and introduces face snapshot controls for the Deep Search function. Users encountering these issues or with privacy concerns related to Deep Search are recommended to upgrade for improved stability and functionality.

Changed Features

- The installer process now includes the option to Enable/Disable the Deep Search function and the switch for using and storing face snapshots. This switch will only appear during a fresh VSS installation and not during upgrades.
- The Deep Search settings have a new switch for using and storing face snapshots. When upgrading from a prior VSS version, the default setting will be enabled, while for a fresh installation, it will follow the configuration set during the installer process.

Bug Fixed

- Fixed the issue where logging into the server using the client would sometimes display "server not responding" due to an excessive number of connected substations.
- Fixed the problem with specific models of AXIS cameras, where changes in the parameters of the latest AXIS firmware caused live view and recording issues on VSS.
- Adjusted the timestamp of the bookmark triggered by the VCA event "Unattended Object Detection" to the time the event was just triggered.
- Fixed the issue where the bounding box of the triggered object in the VCA event "Unattended Object Detection" was not displayed in the view cell.
- Fixed the occasional system crash problem when using the "Send HTTP" alarm action.

VSS 1.1.0.1000 – Oct 12, 2023

Release Summary

This is the first release of VSS 1.1. This update brings several new features and improvements over VSS 1.0, making it a highly recommended upgrade for all existing users.

New Features

- Sends Mobile Notification
  - Support “Send mobile notification” in alarm action.
  - Manage iViewer users in the mobile device list.
  - Available in both VSS Std and Pro editions.
  - Requires iViewer version 3.15 or later.
- Privacy Mask on Exported Video
  - Exclusive to VSS Pro edition.
  - Applies mosaic or solid black masks to exported video clips for enhanced data protection.
  - Exported videos are compatible with most standard media players.
  - This feature will disable the ability to simultaneously use VCA metadata display, video encryption, and digital and display watermark functions.
- Re-Search for Similar Faces
  - Exclusive to VSS Pro edition.
  - Requires an update for Deep Learning VCA package to v7.7.4.4 or later on supported VIVOTEK cameras for face detection
  - Allows users to search for similar faces by clicking on the face best shot of an object.
- Support for Virtual Machine (VM)
  - Exclusive to VSS Pro edition.
  - Support is exclusively available for VMware and Microsoft Hyper-V platforms.
- Integration with ND Series NVRs
  - Configures camera settings when using ND 9000 series NVRs with firmware version 4.3 or later.
- Support NS9521 Series Model
  - Enables upgrading from VAST2 v2.13 to VSS Pro edition. The original number of licenses will be retained after the upgrade.

Changed Features

- Deep Search
  - Introduces an ON/OFF toggle for the Deep Search function. For fresh installations, the feature is set to OFF by default.
  - Modifies multiple color selection search logic from "AND" to "OR" for more intuitive search results. Selecting multiple colors will list all objects that contain any of the

selected colors.
    - Sets the default search time to the last hour for quicker access to recent data.
- Data Magnet
    - Adds a new type of rule trigger that supports using a mismatch watchlist.
- Recording
    - Event recording supports seamless recording.
- Counting Report
    - Changes the feature “VCA Report” name to Counting Report

Improvements

- Security
    - Upgrades TLS to version 1.2 for enhanced security.
- IO Box
    - Adds online/offline status display for better monitoring.
- Dashboard
    - Network usage panel now displays the maximum network throughput of your system.
- API Enhancements
    - Provides API support to turn off alarm pop-up windows, E-Map, and alarm tabs triggered by an alarm.
- Installation
    - When upgrading VSS, the installer automatically backs up configuration files to the path "C:\ProgramData\VIVOTEK Inc\Backup\VAST\Server\VSS".
- License Activation
    - Adds a confirmation pop-up window when activating editions that do not require a license key.

Bug Fixed

- Fixed an issue where using the symbols ' or " in user account names prevented the account from being deleted. A mechanism has been added to avoid using these characters.
- Removed "remaining people data" from exported weekly and monthly Counting reports.
- Fixed an issue where live view and playback were unavailable when adding cameras using UDP.
- Fixed an issue with camera recording icons incorrectly displaying when frequently toggling between continuous and event recording.
- Fixed a crash in the streaming server due to insufficient memory in CMS, leading to the loss of camera feeds from substations.
- Fixed an issue where alarms and other settings became unchangeable after importing a .bin file without logging into the server following an NR-v2 reset to default.
- Removed an unused file, "smartctl.exe," identified as a virus by some antivirus software.
- Fixed a licensing issue when upgrading from NR-v2 to VSS after using the Restore to

Default function.

- Fixed an issue where long-duration video exports from cameras under ND in CMS would fail.
- Corrected a display issue for 10G network cards on the dashboard.
- Resolved an issue where frequent joystick commands were interpreted as an attack by the Trend Micro package on cameras, leading to disconnection.
- Fixed an issue where the Import/Export Utility would still export a .bin file even if the database were corrupted.
- Closed Port 5544 to external connections to enhance security.
- Fixed an issue where the camera's ROI would offset when zooming in beyond 175% and reloading a saved view.
- Resolved an issue where alarms would not be triggered if the Data Magnet category character count was less than 2.
- Fixed a memory leak in the plug-in server when the camera's motion event frequency was too high.
- Improved the reliability of exporting camera recordings from substations in CMS during periods of high network traffic.

Known Issues

- Changing the case of the Camera VCA rule name used in Counting Reports will cause the report to fail to display data. If you encounter this issue, reverting the name back to its original case will restore normal data display.

Known Limitations

- The Privacy Mask feature is limited to recordings with a maximum size of 9.4 million pixels. For higher-resolution cameras, such as the MS9321 model, exported recordings will be automatically resized to fall below this limit.
- Only 1O mode supports privacy masks for Fisheye and SC9133 series cameras. To view the exported video in a dewarping mode, please use the VSS Standalone player and activate the ONVIF fisheye lens dewarping option.
- The default image resampling method for the VSS Client's live view is set to "No Resampling." Some Virtual Machines may not support this, resulting in an inability to view the live feed. If you encounter this issue, navigate to Settings -> Preferences -> Client and change the Image Resampling Method to "Nearest Neighbor."

VSS 1.0.0.3000 – Aug 03, 2023

Release Summary

This maintenance release of VSS 1.0 contains bug fixes and performance enhancements. This release is recommended for all VSS 1.0 users.

Bug Fixed

- Fixed an issue where, during software uninstallation, the "remove the recorded data folder" option did not delete the recorded data folder.
- Fixed an issue with cameras under ND machines, where the snapshot function failed when the camera's name contained a "/" character.
- Fixed a VAST2 to VSS upgrade issue. This problem arose when a VAST2 system with a redundant station was upgraded to VSS, causing issues with activating the CMS station's license.
- Fixed a camera live view issue under a CMS/Substation structure where a "no permission" message could appear on the substation's camera live view upon CMS reboot if the auto-start live view page feature was used.
- Removing the 'remaining people' information from the weekly and monthly reports exported from the VCA Report.
- Fixed a memory leak problem that occurred when using the deep search feature.

Known Issues

- On the MAC client, there is a possibility of crashing when switching between live view and playback modes on a camera stream with audio in macOS 13 Ventura.

Known Limitations

- This release does not support running a VSS Server on a virtual machine. The next VSS release, v1.1, will support it.

VSS 1.0.0.2900 – Jun 07, 2023

Release Summary

This maintenance release of VSS 1.0 contains bug fixes and performance enhancements. This release is recommended for all customers.

Changed Features

- Modifies the database mechanism of deep search metadata to improve search performance. The database storage mechanism changed from one database file per recording group to one database file per camera.
- Modifies license backup mechanism for NR models with VSS Pro edition. When the VSS license is updated, the original embedded NR VSS license will be replaced by the new updated VSS license.
- Adds a mismatch rule for Data Magnet. Users set up a mismatch rule to trigger an alarm or action when the data does not match watchlist keywords.
- Improves Send feedback and bugs user interface for better usability.

Bug Fixed

- Fixed a motion event recording issue with the AXIS P3715-PLVE camera model.
- Fixed a VCA report issue: the counting data will not show if the VCA rule name contains a space character.
- Fixed a log-in problem: When upgrading from VAST2 to VSS, there is a possibility that the VSS client cannot log in to the server if too many logs exist.
- Fixed a license import issue: When the user uninstalls a VAST2 server that had activated licenses and then installs a new VSS server, the VSS license key may fail to be activated.
- Fixed a camera sync playback issue on the E-map function.
- Fixed a deep search issue that the object path does not show on the preview and playback video of the search results.
- Fixed a migration license fail-to-import issue: if any VAST2 server hardware fingerprints change after upgrading to VSS, the migration VSS license will not be able to import to the VSS server.

Known Issues:

- On the MAC client, there is a possibility of crashing when switching between live view and playback modes on a camera stream that has audio.

Known Limitations

- This release does not support running a VSS Server on a virtual machine. The next VSS release, v1.1, will support it.

VSS 1.0.0.1000 – Feb 27, 2023

Release Summary

This initial release of VIVOTEK's VAST Security Station (VSS) is an easy-to-use, all-around, AI-powered IP video surveillance software designed to help you manage tens of thousands of cameras with ease and focus on only what matters to you through VIVOTEK AI solutions. With three variants, VSS Lite, VSS Standard, and VSS Professional, you can choose what's best for your organization and scale up the whole system anytime.

Major Features

- **Three VSS editions: VSS Lite, VSS Standard, and VSS Professional**
- **Deep Search**
  - The Deep Search function is an AI-driven post-search empowered by VIVOTEK AI cameras. The Deep Search enhances post-search capability with different types of object metadata, helping users search the target more precisely and faster using attributes and behaviors.
- **Recording Encryption**
  - Allows users to encrypt the recording videos with password protection.
  - The recording videos will be viewable only in the VSS Client and VSS Standalone player.
- **User-Defined Role**
  - A user-defined role allows you to define a common set of permissions for a group of users, reducing the setup time for different groups of users.
- 64-bit VSS server to support up to 16G memory.

Known Limitations

- This release does not support running a VSS Server on a virtual machine. The next VSS release, v1.1, will support it.
- MAC client does not support fisheye dewarping.