LENSEC

The Power of Perspective

Product Release Notes

Version 6.1.0

Thank you for choosing to install Perspective Video Management Software (VMS) from LENSEC. Perspective VMS® is an intuitive, feature-rich, scalable, and yet fully flexible platform for monitoring, interfacing with, and reviewing video surveillance cameras and intelligent devices.

Our latest release (Version 6.1.0) was first made available for installation and world-wide distribution on November 11, 2025.

This document is designed to provide an informational overview of features and issues that may be relevant to your installation of Perspective VMS.

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We appreciate your choice with LENSEC and Perspective VMS®!

1. Introduction

Perspective VMS Version 6.1.0 a Minor version release.

1.1. Scope

The release notes pertain to installations of Perspective VMS Enterprise, Professional, Standard, Express, Command View, and Trial Editions. Separately available is documentation for general use and installation of Perspective VMS.

2. System Requirements

2.1. Client-Side Operating Systems and Browsers Supported

Perspective VMS operates within a native HTML5 platform and is run as a thin-client through all widely used modern web browsers such as Google Chrome and Microsoft Edge.

NOTE	For servers and client recommendations LENSEC recommends Microsoft platforms including Windows Server (2022, 2019 and 2016), as well as Windows desktop versions of Windows 11 and 10 Professional 64-bit. Windows 2003 Server, 2008 Server, Windows XP, Windows 7, and Windows 8 are **NOT** supported.

Client Recommendations (specifications may vary based on anticipated video streaming requirements per installation)

Hardware	Software
Processor: 2.4 GHz (x64 Processor) or 1.3GHz (Dual Core) **Memory**: Minimum 8 GB RAM **Available Disk Space**: Minimum 10 GB **Display**: SXGA (1280 x 1024) or higher resolution	**Client OS**: Windows 10 11 **Client OS**: macOS X or above **Browser**: Google Chrome and Microsoft Edge

2.2. Server System Requirements

Web Server*

Hardware	Software
Processor: 2.4 GHz, 4C/8T (x64 Processor) **Memory**: Minimum 16 GB RAM **Available Disk Space**: Minimum 8 TB **OS Partition**: Minimum 1 x 500 GB SSD **Network Interface Controller**: Minimum 1 GB	**Server OS**: Windows 10/11 Pro or above; Windows 2016 Server or above **Web Server**: Internet Information Services 10 or above **Microsoft .NET**: .NET Framework 4.8, .NET 8.0

Archive/Streaming Server*

Hardware	Software
Processor: 2.4 GHz, 4C/8T (x64 Processor) **Memory**: Minimum 16 GB RAM **Available Disk Space**: Minimum 8 TB **OS Partition**: Minimum 1 x 500 GB SSD **Network Interface Controller**: Minimum 1 GB	**Server OS**: Windows 10/11 Pro or above; Windows 2016 Server or above **Web Server**: Internet Information Services 10 or above **Microsoft .NET**: .NET Framework 4.8, .NET 8.0

Database Server*

Hardware	Software
Processor: 2.4GHz, 4C/8T (x64 Processor) **Memory**: Minimum 16 GB RAM **Available Disk Space**: Minimum 500 GB	**Server OS**: Windows 10/11 Pro or above; Windows 2016 Server or above **Database Server**: Microsoft SQL Database 2014 or above in Express, Standard or enterprise editions

* All services may be installed on a single stand-alone server

2.3. Server-based Software Prerequisites

2.3.1. Internet Information Services (IIS)

Internet Information Services with the following roles are required to host the application. These services will be installed from the Perspective VMS wizard.

Application Development	• ASP.NET • .NET Extensibility (prerequisite for ASP.NET) • ISAPI Extensions (prerequisite for ASP.NET) • ISAPI Filters (prerequisite for ASP.NET) • CGI
Security	• Windows Authentication • SSL (optional)
Web Services	• IIS Management Compatibility

2.3.2. .NET Framework 4.8

PVMS requires .NET Framework **4.8** to operate.

2.3.3. .NET 8.0

PVMS requires .NET **8.0** to operate.

3. Features

3.1. Perspective VMS 6.1.0 (Minor Release)

This version is a **Minor Release** update, including new features, feature enhancements and maintenance items. See below, for an itemized list of updates and descriptions:

Product Feature Name	Description
Archive Encryption	Enables secure storage and playback of encrypted archive files.
Password Protected Extraction	Ability to add a password to download extractions for secure external sharing.
Archive Details Report	Report that illustrates the archives details (resolution and FPS) for each camera.
Rekor (OpenALPR)	Enhancement: Ability to retrieve the status of OpenALPR connector.

3.2. Perspective VMS 6.0.0 (Major Release)

This version is a **Major Release** update, including new features, feature enhancements and maintenance items. See below, for an itemized list of updates and descriptions:

Product Feature Name	Description
Forensic Search Module	New module that allows users to search for objects, such as vehicles, humans, or animals, and their attributes. This enables tracking objects across multiple events and cameras. This requires the availability of metadata from ONVIF cameras.
Forensic Search - Person	Ability to search for a person by name or image in Forensic Search. This requires the availability of Face Recognition engines.
Multiple Events Extraction	Ability to extract multiple event videos from different cameras in Forensic Search Module.
Enhanced Player	Enhance archive player for smoother playback.
Linked Cameras	Ability to navigate between nearby cameras based on directions.
Highlighting Objects	Classify and highlight objects on archive timeline.
Embedded timeline	Camera cell embedded timeline.
Interlink – Live events	Ability to receive events from remote sites in real time.
Share Events	Provide interface for third parties to integrate with system events.
Dashboard – Remote Sites	Ability to view live updates of remote sites components in health widgets in Dashboard Module.
Dashboard – Text Editor Widget	Ability to add text or links in the text editor widget in Dashboard Module.

Camera Hardware Information	**Ability to collect and save cameras hardware information.**
Innovatrics (Smart Face) – Import Person	Enhancement: Ability to import person image and information from Innovatrics Smart Face.
BriefCam	Enhancement: Ability to receive events from BriefCam (L2A).
.NET 8.0	Enhancement: Software updated to .NET 8.0.
Multi-Channel Cameras	Enhancement: Improve configuration and licensing of multi-channel cameras.
Active Directory	Enhancement: Ability to merge/link Perspective VMS users with Active Directory users.
Face Recognition	Enhancement: Event Panel UI enhancements to include detected person information.

3.3. Perspective VMS 5.3.2 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Workflow	Improve security by removing login tokens from archive links in workflow E-mail notifications.
PVMS Password	Bug-Fix: Corrected password length limitation for integrations through camera service.
Archive Playback	Bug-Fix: Corrected archive rewind issue for non-English calendar.

3.4. Perspective VMS 5.3.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Login	Bug-Fix: Corrected login issue when multi-login is disabled.

3.5. Perspective VMS 5.3.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Streaming - H.265	Ability to view live streaming using H.265 codec if hardware supports it. Supported browsers: Chrome, Edge (with an extension) and Brave.
Interlink - Remote Site License Management	Ability to view and manage remote sites' licenses from HQ.
Interlink - Remote Sites License Report	A report to view remote sites' license information.
Dewarping - Vivotek Cameras	Ability to process images from fisheye camera to different views.
Frameless Stream	Ability to remote login to view cameras streaming as player only.
Frameless Playback	Ability to remote login to view cameras playback as player only.
Bosch AMS - Integration	Ability to receive events from Bosch AMS.
Equature - Integration	Ability to redact extractions to provide more privacy.
Innovatrics (Smart Face) - Face Recognition Integration	Ability to receive events from Smart Face.
6SS - General Analytics Integration	Ability to receive events from 6SS.

Gallagher Access Control – Device Import	Enhancement: Ability to import door/readers from Gallagher Access Control.
Gallagher Access Control – Device Status Monitoring	Enhancement: Ability to receive live status for devices from Gallagher Access Control and display it in map module.
Device Actions	Enhancement: Ability to assign actions to groups when adding the device.
Multi Hierarchy Camera Collection	Enhancement: Ability to create and view camera collections in multi hierarchy format.
Windows Authentication	Enhancement: General improvements on windows authentication.
Extractions - Access level	Enhancement: Ability to maintain access level last selection when creating extractions.
API - Cameras GPS	Enhancement: Expose cameras GPS location through API.
API - Dynamic Resolutions	Enhancement: Expose cameras dynamic resolutions through API.
API - Dewarping	Enhancement: Expose dewarping information for remote cameras through API.
Archive - Datetime	Bug-fix: Corrected issue of maximum datetime being displayed for archives records in ADAM.

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3.6. Perspective VMS 5.2.2.1 (EBF Release)

This version is a **EBF Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Install Shield	Bug-Fix: Corrected issue of Camera Service not supporting secure connection to API server.

3.7. Perspective VMS 5.2.2 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Camera Edge Archiving	Bug-Fix: Corrected issue of archive not stopping on the camera event end signal, leading to continuous recording.

3.8. Perspective VMS 5.2.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Active Directory Integration	Bug-Fix: Corrected issue of Active Directory synch not working if filtered group is deleted.
Fleet Archive Import	Bug-Fix: Corrected issue in Vehicle Archive Importing.
API	Bug-Fix: Corrected issue of retrieving Remote Camera Id.
API	Bug-Fix: Corrected issue of License API not retrieving Server number.
Video Collage	Bug-Fix: Corrected issue of Video Collage displaying multiple record in Image Extraction event panel.

3.9. Perspective VMS 5.2.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Dashboard – Map Widget	**Ability to add map viewers as a widget in dashboard module.**
Dashboard – Camera Widget	**Ability to add Camera player as a widget in dashboard module.**
Dashboard – Chart Widget	**Ability to group results by Source, Events, Control list or Vehicle Classification for LPR events**
Dashboard Module	Enhancement: Order dashboards in list alphabetically.

Live Events	Enhancement: Ability to view Camera edge events as overlay in camera cell of camera viewer.
Camera Edge Events	Enhancement: Improve Axis edge analytic support to specify the event type and view the VCA drawing.
Camera Edge Events	Enhancement: General enhancements on the administration part of Camera edge events.
License Plate Report	Enhancement: Ability to exclude vehicle image and plate image from license plate report.re
Archiving Service	Enhancement: General enhancements of performance and memory utilization.
API	Enhancement: Add additional features and property under API version 2.
API	Enhancement: Expose Camera PTZ commands through API.
Edge Recording	Bug-Fix: Fix the problem of archive gaps being proceed on first run only.
Install Shield	Bug-Fix: Fix the problem of SQL Server installation failures occurring randomly.

3.10. Perspective VMS 5.1.2 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Administration Service	Bug-Fix: Corrected memory leak issue.
Archiving Service	Bug-Fix: Corrected issue of service taking too long to start or stop when Web Server (IIS) is down.
Camera Service	Bug-Fix: Corrected issue of Camera Service unable to validate new client requests after API restart.
Camera Selector Panel	Bug-Fix: Corrected issue of left panel disappears after opening all cameras dialog from event info panel.

3.11. Perspective VMS 5.1.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Camera Selector Panel	**Allows users to easily manage their camera views by providing a side panel within the Camera Viewer and Archive module, allowing them to add or remove cameras from their current view with just a few clicks.**
Access Control Integration - Device Status Monitoring	**Ability to receive live status from devices within an integrated Physical Access Control System (PACS) software and display it in map module.**

System Galaxy - Device Status Monitoring	**Ability to receive live status for devices from System Galaxy and display it in map module.**
RS2 AccessIt! - Device Status Monitoring	**Ability to receive live status for devices from RS2 AccessIt! and display it in map module.**
Camera Service (RTSP Server)	**Build enhancement that enables 3rd party systems to playback PVMS camera archives through RTSP stream.**
Camera Service (RTSP Server)	**Build enhancement that allows PVMS Streaming and Archiving Services to connect to camera stream through Camera Service.**
LPR – Vehicle Classification	**Build enhancement that allows users to view and filter LPR events by vehicle classifications including Country, Make, Model, and Vehicle Color.**
Auto Focus (Camera)	**Ability to auto focus Vivotek cameras from within the camera viewer container.**
Interlink - Archive Copy Progress Report	**A report to illustrate the archive copy progress for all remote cameras.**
Camera Viewer - Live Events	**Build enhancement that allows users to view Device and Analytic Rule events as overlay in Camera cell.**
Open ALPR Integration	**Ability to receive No Plate and Parked Vehicles events.**
Halo Detector Integration - Event	**Ability to receive events from Halo Smart Sensor Vape and air quality sensor**
Halo Detector Integration – Camera Model	**Add camera model for Halo Sensor to allow ability to view Sensor dashboard or graph as camera.**
Advanced Detection Technology UVIS Integration	**Ability to receive events for Under Vehicle Inspection System from Advanced Detection Technology.**
SkiData Ticket Printing	**Ability to send License Plate to SKiData to be printed on the parking ticket.**
Gallagher Access Control - Events	**Ability to receive events from Gallagher.**
Gallagher Access Control – Cardholder Image Importing	**Ability to import cardholder images from Gallagher Access Control.**
Gallagher Access Control – Actions	**Ability to control (open, close) door controls within Gallagher Access Control.**
Interlink - Archive Copy	Enhancement: Improve archive copy of remote cameras from remote site to HQ.
Events Panel - LPR	Enhancement: Improve style of event panel to support vehicle classifications.
Access Control Integration - Device Importing	Enhancement: Ability to set Minimum Event Date from device import dialog.
License Plate Report	Enhancement: Improve style of License Plate report to support vehicle classifications.

Interlink Streaming Enhancement	Enhancement: Interlink – Support streaming from HQ server for remote cameras
Event Panel	Enhancement: Improve event panel performance for large events with high frequency
Dashboard Module	Enhancement: Enhance Dashboard module accessibility from administration
Archive Threshold Control	Enhancement: Add system wide setting to disable target retention logic for all cameras.
UI Notifications Enhancement	Enhancement: Improve UI notifications for camera and device events to near real time
Arabic Readability Enhancement	Enhancement: Improve readability of Arabic font
Image Snapshot	Enhancement: Improve readability of camera name and datetime in snapshot
Global Search	Enhancement: Ability to navigate to remote cameras administration from global search
Install Shield	Enhancement: Add option within the services step that allows for service recovery in the event of failure.
Camera Service (RTSP Server)	Enhancement: General enhancements for improved stability and performance.
Archiving Service	Enhancement: General enhancements for improved stability and performance.
Edge Archiving Performance	Bug-Fix: Corrected performance issue in Edge Archiving caused by too many gaps

3.12. Perspective VMS 5.0.2 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Install Shield	**Corrected issue of server list not loading all servers.**
Install Shield	**Update SQL Client from version 11.2 to 11.4 to support TLS 1.2.**

3.13. Perspective VMS 5.0.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
PTZ Support (Axis)	Bug-Fix: Corrected PTZ settings for locked AXIS models.
Install Shield	Bug-Fix: Corrected Database update issue when upgrading from PVMS v4.3.1 to PVMS 5.0.0

3.14. Perspective VMS 5.0.0 (Major Release)

This version is a **Major Release** update, including new features, feature enhancements and maintenance items. See below, for an itemized list of updates and descriptions:

Product Feature Name	Description
Dashboard Module	**New module that enables Users to build and view custom dashboards. Leveraging system health widgets and multiple event widgets to visualize Analytic Rules, Device Events, and Camera Events.**
LPR Event Validation	**Build enhancement that enables support for LPR event validation against 3rd party validator services.**
Camera Service (RTSP Server)	**Build enhancement that enables Camera Service, allowing 3rd party systems to connect to PVMS cameras through RTSP stream.**
Dynamic Interlink	**Build enhancement that doesn't require Interlinked Remote Sites to have a static IP.**
Log Retention Job (Job)	**Ability to set the frequency to run system logs retention routines for Windows IIS and System Access logs.**
Event Retention Job (Job)	**Ability to Set the frequency to run event logs retention routines for Camera Edge and Server events.**
Interlink for All Editions	**All Perspective VMS editions v5.0 or later are now Interlink enabled.**
Latest PVMS Version Check (Job)	**Ability to Set the frequency to check for latest PVMS version.**

Vaxtor ALPR - License Plate Recognition	**Ability to read license plates and convert to text data using optical character recognition.**
LPR Validator	**Build integration for LPR Validator: Elm Kashef service for vehicle legal status check.**
Modbus TCP/IP – Events	**Ability to pull (as events) device reading and status from Programmable Logic Controllers (PLC) through the standard Modbus protocol.**
Modbus TCP/IP – Actions	**Ability to control devices connected to Programmable Logic Controllers (PLC) through the standard Modbus protocol.**
ZKBioSecurity - Events	**Ability to pull (as events) Access Control transactions from ZKBioSecurity's Access Control System by ZKTeco.**
ZKBioSecurity - Actions	**Ability to control (open, close) door controls within ZKBioSecurity Access Control system**
ZKBioSecurity - Device Importing	**Ability to import door devices into the administration configuration of PVMS from the Access Control database.**
Archive Status Report	Enhancement: Enable quick navigation to Camera and Camera Model administration by clicking on their name.
Interlink	Enhancement: Allow establishing interlink connection from remote site.
External Notifications (Email)	Enhancement: Enabling a new Workflow that sends an extraction audit trail in email notification.
Events	Enhancement: Improve loading performance of events.
Alert Pop-up Message	Enhancement: Support wildcard in popup message to include trigger details, in the case of camera, device, and analytic rule triggers.
Archive Jobs	Enhancement: Improve scheduled archive job execution times.
Live Maps	Enhancement: Improve performance of location search in Open Street Map.
Database	Enhancement: Update database compatibility level to latest version, for improved performance.
Administration Service	Enhancement: General improvements in Administration service logic.
Camera Integrations	Enhancement: Added Hanwha Wisenet camera models to the default cameras database.
Archive Module	Enhancement: Set the time for newly added second camera in archive module to existing camera time.
Archiving Service	Bug-Fix: Corrected an issue of TCP connections consumed when attempting to connect to a camera that returns "errfindstreamfailed" errors.
Map Locator	Bug-Fix: Corrected an issue of Map Locator not working from mobile browser.
Archive Threshold Control	Bug-Fix: Corrected an issue of Target days not working in ADAM mode.

| Archive Threshold Control | Bug-Fix: Corrected an issue of Archive secondary oversize it not working. |

3.15. Perspective VMS 4.5.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Access Control Integration - Cardholder Image Importing	**Ability to import cardholder images for cross reference to video data**
Connectors Status Report	**A report to illustrate the updated status of an integration connection via external service.**
CredoID - Cardholder Image Importing	**Ability to import cardholder images from CredoID Access Control software.**
Integration Data Synchronization (Job)	**Ability to set frequency of data synchronization for integration connectors**
Maintenance Period Expiration (License)	**Ability for displaying the advanced notice of expiration of software maintenance**
RS2 AccessIt!- Cardholder Image Importing	**Ability to import cardholder images from RS2 Access Control software.**
System Galaxy - Cardholder Image Importing	**Ability to import cardholder images from System Galaxy Access Control software.**
Shotspotter - Events	**Ability to provide event detail and geo location mapping for events generated from ShotSpotter's gunshot detection analytic.**
Soter - Vape Detector Event Integration	**Ability to provide event detail and camera association with Soter Vape Detection.**
Suprema Face Station - Events	**Ability to pull (as events) Access Control transactions from Suprema Face Station Access Control System by Suprema.**
Suprema Face Station - Device Access Control	**Ability to send commands (i.e. Lock/Unlock) to devices within integrated the Suprema Face Station Access Control System (PACS) software from Suprema**
Archive Video Extraction	Enhancement: Improve h.264 output on Video Extractions
Web Assembly	Enhancement: Improve Web Assembly with dynamic GOP/GOV
Camera Snapshots (Image Portfolio) Report	Enhancement: Add ability in Camera Snapshot report to select camera(s) from a point in time and take available images from that time
Image Snapshot	Enhancement: Display image time in metadata
Multi-view Presets	Enhancement: Allow for saving of PTZ presets within a multiview preset (provided the PTZ camera is not locked)
External Notifications (Email)	Enhancement: Includes Workflow trigger information in footer of email

Custom Logon Script/Message	Enhancement: Add Active/Inactive toggle checkbox to Welcome Message
Custom Logon Script/Message	Enhancement: Add Active Date/Parameter to Welcome Message dialog
Mobile Browser - Auto Rotate Camera Viewer	Enhancement: Auto-rotate select camera layouts if in mobile browser when rotated
Touch Enabled	Enhancement: Access Control Actions should function on touch enabled devices
User Groups	Enhancement: Improved logic on permissions of delegated groups
Axis - Body Worn Camera Integration	Enhancement: Improved support for encrypted files for Axis Body Worn
ONVIF Camera Discovery	Enhancement: Improved Bulk Add from Camera Discovery
Dynamic Camera Icons	Enhancement: Support for graphic change to the camera icon if reported offline
Tagging	Enhancement: Ability to tag event start/end date/time in order to define the covered period
Dynamic Resolution Multi-View Streaming	Bug-Fix: Corrected an issue in application of dynamic resolution based on number of options for stepping resolution dynamically
Tagging	Bug-Fix: Corrected an issue for create a tag button in camera viewer module would not work in IOS devices
ALPR - License Plate Recognition Events	Bug-Fix: Corrected display of letters in Arabic for LPR
Scheduled Access Login Limitation	Bug-Fix: Corrected auto logoff of scheduled Access Login Limitation

3.16. Perspective VMS 4.4.1.1 (EBF Release)

This version is a **EBF Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Sweep Archive Retention (Days)	Bug-Fix: Corrected issue preventing deletion of files under conditions

3.17. Perspective VMS 4.4.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Enhanced WebAssembly (WASM)	Ability to leverage Enhanced WebAssembly for managing archive playback per device

3.18. Perspective VMS 4.4.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Alert Pop-up Message (Action)	Ability to trigger via workflow a pop-up message as an action response.
Axis - Body Worn Camera Integration	Ability to integrate and import videos from the Body Worn Camera system from Axis Communications.
Camera List - Quick Actions	Ability to quickly navigate to camera actions from a quick-access menu in the administrative camera list
CredoID - SignalR Events Communication	Ability for Real-time event communications using SignalR with CredoID
Custom Event Panel Administration	Ability to create and manage custom event panels for organizing device or behavioral events.
DMP Panel - Events	Ability to pull (as events) Intrusion Detection transactions from DMP
DMP Panel - Device Access Control	Ability to send commands (i.e. Lock/Unlock) to devices within integrated the DMP Physical Access Control System (PACS) software from DMP.
DNA Fusion - Events	Ability to pull (as events) Access Control transactions from DNA Fusion Access Control System by Open Options
DNA Fusion - Device Access Control	Ability to send commands (i.e. Lock/Unlock) to devices within integrated the DNA Fusion Physical Access Control System (PACS) software from Open Options.
DNA Fusion - Device Importing	Ability to import door devices into the administration configuration of PVMS from the DNA Fusion Access Control System from Open Options
Dynamic Events Panel	Ability to support dynamic actions panel associations where an administrator can assign devices to integration Event Panels
Edge Analytics (Vivotek) - Deep Learning VCA LPR Feature	Ability to support edge LPR events from Vivotek
Event Snapshot Download	Ability to download a snapshot of a defined event from the preview panel including the event metadata
Event-based Trigger (Failover)	Ability to initiate/trigger a programmable action (via workflow routine) based an defined an event from a Failover condition being met

External Service Distribution	Ability to distribute the load of External Service over multiple servers
Google Maps Integration	Ability to leverage Google Maps for associating security objections geographically
Interlink - Remote Events	Ability to link remote events for viewing
Milesight – MJPEG Server-side streaming	Ability to support MJPEG from Milesight cameras
Milesight – H.264 support	Ability to support H.264 from Milesight cameras
Milesight – Edge Motion Detection	Ability to support edge motion detection from Milesight cameras
Print Screen	Ability to generate a user friendly layout for browser printing (Control-P).
RFID Tag Inventory Report	Ability to filter RFID data and run printable RFID Tag Inventory reports.
RFID Device Transactions Report	Ability to filter RFID data and run printable RFID device transaction reports.
SSL Camera Authentication	Ability to support SSL connections to camera devices
WebAssembly (WASM)	The VMS shall have an ability to leverage WebAssembly for managing archive playback per device
Email Settings	Enhancement: Allow for anonymous SMTP mail settings
Share View	Enhancement: Support of the Fleet Module within ShareView
RS2 AccessIt! – Door Control	Enhancement: Includes API integration with SSL for newer versions of AccessIt!
User Group Administration	Enhancement: Allow for saving of group without having camera or map associated
Axis Bi-Directional Audio	Enhancement: Allow for bi-directional audio streaming of Axis Network Speakers
Custom Themes	Enhancement: Ability to make the Whisper Notification location semi-selectable (4 corners or center)
Multi-Level Mapping	Enhancement: Ability to expand/collapse Map items
Custom Logon Script/Message	Enhancement: Ability to assign user groups to Welcome Messages in administration
Touch Enabled	Enhancement: Ability to navigate between multi-view sequence views while using touch-enabled device via a swipe motion
Multi-View Presets	Enhancement: Labeling of multi-view preset in the camera viewer title
Event Panel	Enhancement: A dedicated UVSS event panel to illustrate event specific data and images more clearly
User-defined Schedules	Bug-Fix: Corrected an issue where editing the "Always" schedule will cause duration to be reset to "0" while the value appears as 24 hours on the UI
Full Screen Monitoring	Bug-Fix: Corrected an issue with full-screen on MAC devices
PTZ Control	Bug-Fix: Corrected and issue where the zooming Level in PVMS for PTZ is different than the Zoom level in the Camera Interface

3.19. Perspective VMS 4.3.1.1 (EBF Release)

This version is a **EBF Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Streaming Service	Bug-Fix: Corrected an issue causing a black screen under certain conditions while streaming with Version 4.3.1

3.20. Perspective VMS 4.3.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Server-Side, Motion-based Archiving (H.264)	**Ability to archive on motion via a server-based motion analytic for cameras using the h.264 codec.**
Camera Tamper Analytic	**Ability to alert or trigger a workflow based upon a global change of the camera image or field of view using a server-based analysis of the video stream.**
Event-based Trigger (Workflows)	Enhancement: Improves on "camera event" configuration in workflow triggers
RS2 AccessIt! – Door Control	Enhancement: Supports all RS2 device actions
Administration Service	Bug-Fix: Corrects 4.3.0 (new install) bug for Administration Service in non-AD environments
Workflows by Camera Report	Bug-Fix: Corrects input string error from Version 4.3.0
Archiving Service	Bug-Fix: Corrects error for Edge archiving when the GOP/GOV Length is much larger than the Archiving Frames per second

3.21. Perspective VMS 4.3.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Bosch IDS Panel Integration - Events	**Ability to pull (as events) Intrusion Detection transactions from Bosch**
CredoID Access Control Integration	**Ability to pull events from CredoID Access Systems**
CredoID Device Import	**Ability to import door/readers from CredoID Access Systems**

Email Snapshot Resolution	**Ability to control email snapshot resolutions when sending from VMS via email.**
Facemask Detection Video Analytic	**Ability to detect if a person is wearing a face covering**
Fleet Trips - Print Route Generator	**Ability to print a route driven over a period of time within the Perspective VMS Fleet Module**
Gatekeeper UVIS Integration	**Ability to integrate with Intelligent Vehicle Undercarriage Scanner (IVUS) from Gatekeeper**
Hanwah I/O Support	**Ability to support Input/Output controls on Hanwah camera models**
RS2 AccessIT! Device Import	**Allows for importing of door readers from AccessIt! systems**
ONVIF Edge Motion Detection	**Allows for Edge Motion detection through ONVIF listener**
User Profile – Stretch Stream Option	**User option to display defined aspect ratio streams in alternate aspect ratio containers without stretching or cropping the video.**
User Profile – Pop-up Notification	**User option to display pop-up events**
V-Authenticate Visitor Management	**Integration with VAMS visitor management from V-Authenticate**
Administration Service	Enhancement: Improved deletion logic
Action Button	Enhancement: Allows for user-defined ordering of Action Buttons
Archive Status Report	Enhancement: Allows for filtering of report for status changed since a selected date value
Archive Timeline Control	Enhancement: Ability to scan through archive timeline with thumbnail previews
Badgepass Access Control	Enhancement: Allows for testing of the Badgepass connector from Administration
Behavior Events	Enhancement: Allows map locator column in behavior event information panel table
Camera Models	Enhancement: Addition of various camera models from several manufacturers
Camera Network Settings	Enhancement: Ability to address cameras via hostname
Camera Discovery	Enhancement: Improved camera discovery fields and columns
Devices	Enhancement: Ability to select historical data from newly added devices (integrations)
Hanwah Camera Integration	Enhancement: Ability to support newer protocols for Hanwah PTZ models
Installation Shield	Enhancement: Adds several new options to install shield including the ability to install SQL and Windows services user accounts for stand-alone, distributed, and ADAM servers.
License Key	Enhancement: Allows for tracking of Analog versus IP cameras independently

.NET Framework	Enhancement: Updates target .NET framework 4.8
Scheduled Access Login	Enhancement: Automatically logs off users when outside controlled access window (time)
System Galaxy Access Control	Enhancement: Ability to disregard repeated events during synchronization
User Groups	Enhancement: Addition of default groups for easier mobile user experience management
User Experience	Enhancement: Larger scrollbars for easier grab and drag functionality
Video Collage	Enhancement: Improves video collage extraction speed
Video Collage	Enhancement: Allows for video collage from Vehicle Incidents
WebRTC	Enhancement: Updated to Version 84
Workflows	Enhancement: Allow Acknowledge Response Report to be sent via a workflow
Workflows	Enhancement: Allows Stop/Start archiving upon external event trigger in workflows
Axis Camera Integration	Bug-Fix: Corrects multi-channel sensor configuration for Axis 3717 models

3.22. Perspective VMS 4.2.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Device Configuration Report	**Provides a report to illustrate the relationship between integration connectors and devices**
Event Analytic Playback Overlay	**Provides a visible overlay of the analytic event's metadata during playback.**
Event Analytic Snapshot Overlay	**Provides a visible overlay of the analytic event's metadata via an image snapshot.**
Planar Video Wall Distribution	**Receives events from Planar Video Wall controllers.**
PTZ Presets (Edge)	**Ability to optionally set PTZ presets for configuration on the camera (at the edge).**
PTZ Return to Home Timeout	**Provides ability to set a timeout for PTZ to return to home.**
Razberi Monitoring Events	**Ability to receive server health alerts from appliances by razberi technologies.**
Syslog (SNMP) Device Connection	**Ability to add syslog connections for SNMP communication.**
WinDSX Integration (DSX Systems)	**Ability to pull access control events using WinDSX Events Cast API**
Access Log Audit Report	Enhancement: Added ability to log the user access date/time information when viewing archives
Archive Video Extraction	Enhancement: Improved handling of h.265 extractions in browser
Camera Models Setup	Enhancement: Added default models and encoders for various camera manufactures
Camera Security Settings	Enhancement: Allows ability to use anonymous camera access
Camera Viewer Interface	Enhancement: Container connecting background provides user preference option of a black empty background or a background populated by the camera image snapshot (from archives).
CyberExtruder Events	Enhancement: Supports "Uncertain" event category reporting from Aureus integration
Edge-based Motion Settings	Enhancement: Allows ability to set parameters for edge-based motion archiving on select camera models
Interlink (Administration)	Enhancement: Allows ability for SSL support on Interlink configuration deployments
Interlink (Administration)	Enhancement: Allows defined default groups for cameras, maps and remote camera administration

Galaxy Integration	Enhancement: Allows for the use of SignalR communication methods with System Galaxy and Cloud Concierge from Galaxy Control Systems.
Health Monitor Alerts	Enhancement: Issues alert on remote failure to copy archives in an Interlink configuration
LDAP-Signing	Enhancement: Allows for connection configuration settings for LDAP signing requirements.
Mobile Device Configuration	Enhancement: Provision of default user groups with optimized configuration settings for mobile users.
Multi-Sensor Camera Configuration	Enhancement: Enabled edge archiving on multiple multi-sensor camera configurations from Axis Communications.
Workflow – UI Action	Enhancement: Allows for opening a browser tab with a custom URL setting with an automated workflow based upon a triggerable event.
Copy Administration Items	Bug-Fix: Corrected an issue where camera archive settings would not populate on copied camera records.

3.23. Perspective VMS 4.1.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
JVA Energizer Fence Integration	**Ability to receive events from JVA Technologies Electric Fence**
Autonomous Distributed Archive Management (ADAM)	Bug-Fix: Corrected configuration functionality bug (introduced in Version 4.1.0)
Install Shield - Installation Wizard	Bug-Fix: Corrected issue which limited Streaming Service from auto restarting after reboot (introduced in Version 4.1.0)
ONVIF PTZ Handler	Bug-Fix: Corrected issue with camera sequences on ONVIF PTZ handled devices
ONVIF PTZ Handler	Bug-Fix: Corrected missing PTZ preset lists on ONVIF PTZ handled devices
Virtual Output Actions	Bug-Fix: Correct archive configuration limit when using a virtual trigger
Open ALPR	Bug-Fix: Enable proper handling of duplicate records

3.24. Perspective VMS 4.1.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description

CommPort UVSS Integration	Ability to receive events and video from CommPort's Under Vehicle Surveillance System
Alert pop-up stream (action)	Ability to trigger via workflow a pop-up stream of a camera as an action response
Live Stream Pop-up Alert	Movable window for streaming camera views from any module
Archive STORE Analysis	Ability to check for unhealthy or missing files on disk
Archive Timeline Seek	Ability to scroll/seek the archive timeline with image previews
Distributed Services Failover	Ability to configure fail-over services on alternative servers for increased system redundancy
Fleet Reports	An area inside of the reports module for launching the fleet reports
Idle Time Event (Fleet)	Ability to auto calculate and tag vehicle idle time in event timeline
Import Vehicle Incident	Ability to schedule vehicle incident imports from fleet recorders
Live Map Distance Measuring	Ability to measure between points and area within Live Maps (Maps Module)
MorphoTrack Events Pull	Ability to pull events from a MorphoTrack reader
Multi-Language Support (French)	Operation in French
Multi-Language Support (Portuguese)	Operation in Portuguese
Privacy Mask for Extractions	Ability to create privacy masks for video extractions
RAIN RFID Events	Ability to receive events and alerts with Impinj RFID connectors and devices
RS2 – AccessIt! Door Control	Ability to control (lock, unlock, pulse) door controls within AccessIt! Access Control
SDK Service (Service) x64	Ability to operate a 64-bit SDK service for 3rd-party interconnectivity with Perspective VMS
Sicurit HyperPower Event Detection	Event detection from Sicurit HyperPower Perimeter detection
Silence Sicurit HyperPower Alarms	Ability to silence Sicurit alarms
System Galaxy - SignalR Integration	Ability to integrate with actions and events with System Galaxy using SignalR communications
Vehicle Camera Health Status Report	Ability to generate health reports on camera health of remote fleet devices
Web Services Architecture Failover	Ability to configure fail-over web services on alternative servers for increased system redundancy
Zensors Analytic Integration	Ability to send images for analysis from Zensors enhanced analytics
Installation Package/Wizard	Enhancement: Improved handling of WSS/SSL configured sites during upgrades

Custom Map Shapes	Enhancement: Allow for drawing of Polygon shapes
Server-Generated Extraction Overlay	Enhancement: Added ability to append the PVMS camera name to the timestamp during extraction
User-defined Schedules	Enhancement: Added ability for including Hours and Minutes to schedule recurrence
Configurable Archive Service Settings	Enhancement: Added optional setting (on by default) for notification of "camera not setup for archiving"
Restrict Access	Enhancement: Renamed "LOCKDOWN" to "Restrict Access"
Authorized Pass-through Authentication	Enhancement: Added ability to disable a generated pass-through login
Event-based Trigger (System Alert)	Enhancement: Added ability for Server Health alert to act as a trigger for a workflow
Multiple Aspect Ratio Viewing	Enhancement: Handle multiple aspect ratios 3:4
Expandable Info Panel	Enhancement: Improved display of fields and details
Fit Window Viewing	Enhancement: Allow for "Fill Screen" and "Borderless" in Archives module
Archive Video Extraction	Enhancement: Display confirmation dialog when user attempts to create an extraction with interval longer than 24 hours
Global Search	Enhancement: Added ability to find cameras by IP address in Global Search
Secondary Archiving Configuration	Enhancement: Added ability for on-demand switching between primary and secondary archives during playback
Camera Setup	Enhancement: Display Primary and Secondary store locations in Administration | Cameras | Cameras grid
Auto Focus (Camera)	Bug-Fix: Correct: AutoFocus not appearing on camera overlay (introduced in Version 4.0.0)
H.264 Support (Hanwah)	Bug-Fix: Adjust name of Hanwah models from Samsung
Global Search	Bug-Fix: Removed dependency of Administration access for searching cameras via global search
Multi-Language Support (Russian)	Bug-Fix: Corrected missing labels for Russian operation
PTZ Control	Bug-Fix: Corrected behavior on zooming select PTZ cameras

3.25. Perspective VMS 4.0.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Install Shield	Bug-Fix: Corrected camera username and password field migration (introduced in Version 4.0.0)
Install Shield	Bug-Fix: Corrected servers dropdown population on installer

Install Shield	Bug-Fix: Corrected naming of Web Streaming and Health Monitor Service

3.26. Perspective VMS 4.0.0 (Major Release)

This version is a **Major Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Analytic Rules Administration	Ability within the Integrations section of Administration for naming and associating analytic rules with cameras for use in alerts and workflows.
Android Mobile App Connection	Connection with Version 4.x to Android Mobile Application
Antenna (RFID) Administration	Ability within the Integrations section of Administration for naming and associating RFID Antennas with cameras for use in alerts and workflows.
Connectors Administration	Ability within the Integrations section of Administration for naming and associating connectors (3rd-party controlling or reference objects) with devices for use in alerts and workflows.
Custom Map Shapes	Ability to design custom shapes for placement on a map
Custom Reports	Ability to save custom report filters and configurations
Event-based Trigger (Multiple Cameras)	Ability to initiate/trigger a programmable action (via workflow routine) based a defined an event from multiple cameras selected at once
Event-based Trigger (White list / Black list)	Ability to initiate/trigger a programmable action (via workflow routine) based an defined an event from a configured control list
Filterable Fleet Timeline Events Legend	Ability to filter via select box on Timeline Legend events for population in corresponding timeline.
Filterable Timeline Events Legend	Ability to filter via select box on Timeline Legend events for population in corresponding timeline.
Fleet Security Management Module	Ability to manage multiple fleet vehicles/devices centrally for viewing video across a timeline of events and including the ability for vehicle incident export.
H.265 Support - Archiving	Ability to archive video in H.265 (HEVC) format.
Highlight Tags	Ability to mark / highlight an area of interest within a tagged event
Interlink Remote Connection	Ability to link multiple remote independent sites for integrated client management
Pelco Analog PTZ (Pelco D) Support	Ability to support integration with analog Pelco-D PTZ control signals
User Defined Side Panel Position Preference	Ability to maintain preferred state of side panel (minimized/maximized) across user sessions.
Vehicle Incident Events	Ability to store vehicle video incidents for retrieval end extraction

Virtual Vehicle Speedometer	**Ability to track of vehicle's speed during transit route in association with video**
Scheduled Access Login Limitation	**Ability to restrict users access to the VMS during selected schedules**
Fast Archive Rewind	Enhancement: Allows for immediate rewind of MJPEG archiving from live view regardless of position in time of video/archive file generation.
Administration Service	Enhancement: Improved handling of faulty disks during file management routines
Events Panel – Archive Playback	Enhancement: Allows ability to play audio in events info panel playback
Active Directory Integration	Enhancement: Supports removal of users no longer listed in Active Directory
Camera List (Administration)	Enhancement: Added column for Monitored camera attribute
Extractions Permissions	Enhancement: Added ability to share extractions to a group (similar to presets and sequences)
SDK/API	Enhancement: Various enhancements to Module control via API for 3rd-Party integrations
Archive Timeline Control	Enhancement: Allow for ability to drill into active timeline slider for quick navigation
Connectors	Enhancement: Renamed integration connectors for better interpretation of object
Web Service	Enhancement: Ability for Perspective VMS to operate as a client on Linux Unbuntu
PTZ Sequence Editor	Bug-Fix: Restricted ability to allow Time-to-path to exceed Hold Time
Custom Icons	Bug-Fix: Corrected issue of aspect ratio abnormalities on upload of image files for icons
Side Panel	Bug-Fix: Corrected issue of side-panel opening and closing during module transition

3.27. Perspective VMS 3.5.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Access It! Universal Integration	**Ability to receive events from RS2 Access Control (Access It!)**
ACTi Encoder Integration	**Ability to receive video from ACTi Encoders**
Aureus 3D Facial Recognition	**Ability to receive events from Aureus 3D Facial Recognition**
Camera Security Profiles	**Ability to associate a password profile policy for camera security**

Camera Password Management Push	Ability to auto-generate and push passwords generated in Perspective VMS compliant with designed password policy parameters to compatible cameras
Dual Stream Archiving	Ability to leverage dual camera streams for multi-streamed archiving using unique archiving parameters for each stream
Fleet Object Integration	Feature Set offering the ability to communicate with inputs and outputs of a vehicle fleet, including GIS mapping, Acceleration, Turn-signals and Stop-arms and apply the meta-data with the archived video
GOP/GOV length Adjustment	Ability to the adjust the GOP/GOV rates administratively within the VMS on compatible camera models
HIK I/O Integration	Ability to receive input signals and send output commands with HIK camera models
HIK Edge-based Motion Detection	Ability to receive edge-based motion events from HIK Camera models
HIK Audio Streaming Integration	Ability to stream audio from HIK camera models
Instant Replay – 10 Seconds back	Ability to interact with a quick replay button for instant rewind at 10 second intervals
Live Maps	Ability to integration to dynamic map tools showing street names and site facilities including the ability to search for sites and addresses.
Map Browser – Rapid Camera Loading	Ability to load all cameras from a map with one click from the Camera Dock interface
Map Coordinate Grid	Ability to generate an X,Y coordinate grid overlay to visually represent locations on any map
Multi-Store Archiving	Ability to segregate archiving to a primary and secondary archive store
Open Street map Integration	Integration with OpenStreet Maps®
Pelco NVR Support	Ability to leverage and pull video streams from Pelco NVRs
Rotate Camera Streams	Ability to rotate (via the VMS) camera streams 90, 180, and 270 degrees
Workflow History Report	Report showing historical transaction log of workflow events initiated by an action trigger.
WebRTC Integration	Ability to leverage WebRTC technology for video streaming across browsers
Archiving Service	Enhancement: Archive service will take into account changes at camera settings level and restart the thread accordingly
Map Locator	Enhancement: Added ability to Navigate to Map once called via the Map Locator function
Camera Icon Set	Enhancement: Added ability to choose when to scale objects per individual map

SQL Backup/Restore	Enhancement: Add ability for scheduled SQL backup within Administration | Settings | Backup Utilities
Server Administration	Enhancement: System should query and display Server time and time source
Extraction Detail View	Enhancement: Added Created "Duration" to show how long system took to generate file
Side Panel Interface	Enhancement: Added ability to expand (resize) action panel vertically if more buttons exist
Info Panel	Enhancement: Added support audio playback in archive player in event info panel
Administration: Bulk-edit	Enhancement: Added function for Delete" keyboard button to delete records in administration sections
Distributed Database Communication	Bug-Fix: Addressed issue of extremely large databases recycling event identities
Extractions	Bug-Fix: Optimized Stored Procedures for extremely large databases on the extractions table
Map Layout Designer	Bug-Fix: Corrected issue where Map thumbnail would not show in dialog upon initial save/apply
Map Layout Designer	Bug-Fix: Corrected issue where a map layout could exceed the width of a custom design
Google Chrome	Bug-Fix: System better supports extremely large datasets within cached browser limitations

3.28. Perspective VMS 3.4.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Dahua Integration Support	Enhancement: Added integration features for Audio, I/O handling, and PTZ Support
BTZ Integration Support	Enhancement: Added integration features for Bi-directional Audio, I/O handling, and PTZ Support
Camera Models Setup	Enhancement: Prevent overwrites of custom resolution parameters on default models
Database Management	Enhancement: Improved support for extremely large data sets and data management
Installation Wizard	Bug-Fix: Corrected Encryption on install/upgrade
Mozilla Browser Support	Bug-Fix: Corrected behavior in restarting services within Mozilla browsers

External Notifications	Bug-Fix: Corrected scenario in generating external reports in incorrect language

3.29. Perspective VMS 3.4.0.1/2 (EBF Release)

This version is an **EBF Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Database	Enhancement: Improved speed during upgrade
Install Shield	Bug-Fix: Corrected functionality issue on certain upgrade instances to accommodate removal of old file structures
Install Shield	Bug-Fix: Corrected encrypted xml file implementation during installer.
Administration Service	Bug-Fix: Corrected procedure in Admin service introduced in 3.4.0.1

3.30. Perspective VMS 3.4.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Notifications Policy	Ability to determine notification preferences on alerts, specifically which email addresses will be notified upon event occurrence.
Password Policy	Ability to determine password policy qualifiers (character limit and type) for users and camera devices.
Camera Testing Report	Audit report illustrating the last time a camera test was executed per camera
Open ALPR Integration	Ability to detect and define domestic and international License Plates using Optical Character Recognition
Secondary Archiving Configuration	Ability to archive a second continuous archive at a configurable frame per second on all motion-based archiving
Web Service	Enhancement: Improved scaling ability for mobile web browsers
PTZ Control	Enhancement: Improved handling and assignment of advanced PTZ controls per model
Camera Setup	Enhancement: Allow camera description field to be searchable in filter lists and Global Search
Archiving Status Report	Enhancement: Improved results for storage calculations by factoring in Missing Days column
Archiving Status Report	Enhancement: Adjust times from UTC to Web Server time zone

Global Search	Bug-Fix: Corrected functionality from Welcome Module
Dynamic Camera Icons	Bug-Fix: Corrected behavior where icons would remain flashing if multiple triggered at the same time.

3.31. Perspective VMS 3.3.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Video Collage	**Ability to download multiple camera extractions into a single playback file as a video collage**
Wall-Clock Archiving	**Alternate method of archive writing using server time vs. P/DTS metadata**
Fast-Find	Enhancement: Update Fast Find (MJPEG) results and accuracy
Fast-Find	Enhancement: Handle H.264 searches more efficiently
Archiving Service	Bug-Fix: Corrected occurrence where archive records would be duplicated when moving servers
Health Monitoring Service	Bug-Fix: Correct logic fault when restarting an archive service after server failure

3.32. Perspective VMS 3.3.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Professional Edition Software	**Introduction of the Professional Edition Version of Software**
Archive STORE Location Foreign File Check	**Ability to check and automate creation of a PowerShell script for removal of any archive location for any folders or files that are not cataloged in the database as valid archive files**
Associated Schedules Report	**Filtered report that shows the relationship between selected schedules and cameras**
Mass Import / Upload	**Ability to upload cameras from a CSV (excel) file**
Motion-based Archive Masking	**Ability to define select areas for motion detection within a Field of View**
Priority Zones – Motion alerts	**Provides the user the ability to define priority levels for motion detection zones.**
System Galaxy Bi-directional Integration (Video Call-ups)	**Ability to communicate via API for event transactions with System Galaxy by Galaxy Control Systems.**

UI Action – Audible Alert (Workflow)	**Ability to configure audible alerts as a part of a workflow.**
User Inactivity Auto-expiration (custom setting)	**Ability to set a configurable automatic expiration on user accounts who have not accessed the system in a configurable number of days**
Virtual Output Actions (Workflow)	**Ability to configure virtual output actions (daisy chain workflows) as part of a workflow**
Watermarking	**Security technology to provide chain of evidence information**
Web Service	Enhancement: Ability to support Digest Authentication
System Health Reporting	Enhancement: Improve DNS configuration impact upon WMI calls
System Health Status Emails	Enhancement: Improve orientation of email alerts for large systems
Archive Video Extraction	Enhancement: Allow for image extractions in queue to be deleted/removed
Global Search	Enhancement: Provide ability for Global Search to remain pinned open after selection
Email Settings	Enhancement: Encrypt sensitive user/password information on configuration
User Groups	Enhancement: Allow ability to define device permissions per user group
Camera/Device Icon Set	Enhancement: Allow for relative scaling of icons on a map
Multi-View Layouts	Enhancement: Allow for incorporation of a 1:1 container size
Map Layout Designer	Enhancement: Re-introduce keyboard controls to the map design tool
Archive History Report	Enhancement: Allow for printing of the Archive History Report
Server Administration	Enhancement: Improve loading of extremely large server data sets
User Mass Editing (Bulk Edit)	Enhancement: Ability to bulk edit user's expiration dates
Archiving Audio	Bug-Fix: Corrected a memory leak found in some h.264 archiving devices
Custom User Profile	Bug-Fix: Correct error when mail domain contains a leading numeric character
Multi-View Presets	Bug-Fix: Correct error on select/switch dialog from selecting a map on very large systems
Archive Video Extraction	Bug-Fix: Increased timeout value to allow for larger video extraction downloads
Multi-Streaming Archive Viewer	Bug-Fix: Corrected condition in Archive View playback when using full screen that would revert timeline

3.33. Perspective VMS 3.2.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description

BadgePass Access Control Integration	**Ability to pull events and control door functions from BadgePass Access Control**
Camera Associative Door Control	**Ability to control associated door(s) from the camera overlay to lock, unlock, and pulse door(s)**
Event-based Trigger (External Input Alert)	**The ability to initiate/trigger a programmable action (via workflow routine) based on defined an event from a configured External Input device**
Event-based Trigger (System Alert)	**The ability to initiate/trigger a programmable action (via workflow routine) based on defined an event from a System alert**
Heat Map Report	**Report illustrating the Heat Map analytic results from Video Analytic integration**
Integration Objects (SG 600 Series Inputs)	**System Galaxy Access Control Integration: Inputs/Outputs**
Motion Path Report	**Report illustrating the Motion Path analytic results from Video Analytic integration**
Quantum Storage Integration	**Ability to integrate for long term storage with Quantum Corporation Tape Storage Devices**
Samsung Camera Integration (Audio)	**Added ability for audio support to Samsung Camera models**
SQL Server 2016 Integration	**Provides the ability to operate and run using Microsoft SQL Server 2016**
Store Status - Archiving Storage Deficit (Analysis) Report	**A report showing archiving storage deficits based on archiving targets, actual archive span, and storage capacity.**
User Profile - Default Audio Settings	**Provides ability to set audio on / off by default when viewing cameras in camera viewer**
Video Analytic: Area Counting Analytic	**Counting and collection of the number and the dwell time of persons within virtual areas, and for each area signaling of the presence of a number of person higher than a defined threshold**
Video Analytic: ATM Analytic	**Detection and signaling of one or more than one persons who remain within a virtual area for longer than a defined time**
Video Analytic: AVSpeed	**Estimation and collection of the average speed of vehicles crossing double virtual gates, and for each double gate signaling of average speed lower or higher than a defined threshold**
Video Analytic: Counting	**Counting and collection of the number of subjects of interest crossing virtual gates in a certain direction**
Video Analytic: Gate Flow	**Counting and collection of the number of persons crossing virtual gates in a certain direction**

Video Analytic: Hot Zones	**Estimation and collection of the percentage of occupancy of virtual areas by subjects of interest, and for each area signaling of an occupancy percentage higher than a defined threshold**
Video Analytic: Intrusion Analytic	**Detection and signaling of the intrusion within virtual areas or the crossing of virtual lines in a certain direction by targets of interest**
Video Analytic: Left Object	**Detection and signaling of objects left unattended within virtual areas for longer than a defined time**
Video Analytic: Loitering	**Detection and signaling of subjects of interest that remain within virtual areas for longer than a defined time**
Video Analytic: Occupancy Rate	**Estimation and collection of the percentage of occupancy of virtual areas by subjects of interest, and for each area signaling of an occupancy percentage higher than a defined threshold**
Video Analytic: Panic Disorder	**Counting and collection of the number and the dwell time of persons within virtual areas, and for each area signaling of the presence of a number of person higher than a defined threshold**
Video Analytic: Slip Fall	**Detection and signaling of a person who lies down and remains on the ground for longer than a defined time**
Video Analytic: Stolen Object	**Detection and signaling of objects removed from virtual areas**
Application Deployment (Out-of-Browser)	**Enhancement: Reintroduce Out-of-browser functionality for HTML5 compatibility**
Archiving Service Watchdog	Enhancement: Change Archive Service Watchdog from sequential to threaded
Archiving Status (Analysis) Report	Enhancement: Added column for calculating estimating total storage required
Administrative Bulk Edit	Enhancement: Reintroduced bulk edit functionality within Administration for HTML5 compatibility.
Camera Discovery	Enhancement: Reintroduced Camera Discovery utility with Administration for HTML5 compatibility.
Camera Dock	Enhancement: Allow for viewing of map with large expandable camera layout
Camera Dock	Enhancement: Allow for motion indication (red outline box) on docked cameras
Camera Dock: Rapid Map Call-up	Enhancement: Improve rapid map call-up to better handle multiple map associations
Camera Setup	Enhancement: Default select TCP on advanced settings of camera setup
Configurable Archive Service Settings	Enhancement: Added ability to disable thumbnail generation on archives older than a certain date
Conditions Setup	Enhancement: Allow for a timeout of UI action via a duration dialog

Dynamic Camera Icons	Enhancement: Reintroduce dynamic camera icons on the map for HTML5 compatibility
Dynamic Resolution Multi-View Streaming	Enhancement: Improved handling of errant resolution attempts when using default dynamic resolution
Expandable Info Panel	Enhancement: Added ability to control door functions (Lock, Unlock, Pulse) from the events info panel.
Global Search	Enhancement: Global search to include results from Administration / Configuration on camera entries
SSL Support	Enhancement: Support of WSS (Secure WebSockets for full SSL support)
User Mass Editing (Bulk Edit)	Enhancement: Ability to bulk edit user's expiration dates
Archiving Audio	Bug-Fix: Corrected a trans-coding process from G711 that resulted in an ambient ticking noise
Archiving Service	Bug-Fix: Corrected multiple memory conditions resulting from archiving h.264 and h.264 audio on select camera models.
Camera Setup	Bug-Fix: Corrected a delay when opening cameras from administration where a large number of cameras were populated
Fast-Find Analytic	Bug-Fix: Correct motion search coordinate mismatch in 3.1.x
Full Screen Monitoring	Bug-Fix: Corrected condition where Full screen (from multiview in IE 11) displayed behind other camera views
H.264 Archiving	Bug-Fix: Corrected errant population of thumbnail images
Informational Camera Header	Bug-Fix: Adjust archive playback icon synchronization
Multi-Streaming Archive Viewer	Bug-Fix: Corrected condition in Archive View playback when using full screen that would revert timeline

3.34. Perspective VMS 3.1.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Auto Focus (Camera)	**Ability to auto focus compatible cameras from within the camera viewer container.**
Camera Access Report	**An ability to run a report show all Users with access to a list of cameras**
Drive/Location Failure Status Email Alert Notification	**Ability for the system to detect and report via email health status exceptions if a store location path is inaccessible**
Reserve Space Email Alert Notification	**Ability for the system to detect and report via email when the reserve space on an archive store location is reached.**
Services Memory Limit	**A configurable setting for capping memory (RAM) utilization by a PVMS service. Upon reaching the threshold the service will be restarted and a alert message will be logged/sent.**

Preferred Default Aspect Ratio	Enhancement: Extended default camera ratio to navigation functions (per camera) from Maps and Administration.
Time-lapse Extractions	Enhancement: Extended the ability to extract video in elongated increments (Frames per Minute) to historical archives. This function allows for video to be extracted from higher frame rates into a time-lapse extraction post archiving.
H.264 Streaming (Live)	Enhancement: Reduced latency in live video streaming over higher GOV/GOP rates
Fast-Find (H.264/MPEG4)	Enhancement: More proficient handling of video search (Fast-Find) on video archives
Door Alerts / Events	Enhancement: Added ability to synchronize with compatible door controllers to reduce artificial latency in reporting. *requires a form of time synchronization across devices such as NTP.
Archive Video Extraction	Enhancement: Upon extraction of corrupted video, logging will be imitated and extraction will complete bypassing the corrupted segment.
Configurable PTZ Control	Enhancement: Reintroduced Click-to-Center, Click-to-Zoom, and the PTZ Sphere on compatible cameras in Version 3.x
Archive Redistribution	Enhancement: Auto restart of admin and archiving services upon save of a store when configuring for Archive Redistribution.
Camera Models Setup	Enhancement: Added default Generic camera types/models for each listed manufacturer.
Workflow Editor	Enhancement: Added indicator message if workflow is not enabled/active upon save.
Camera Setup	Enhancement: Added configuration fields for custom configuration of TCP or UDP Multicast on advanced camera configuration.
Image Snapshot Email	Enhancement: Added the username of the sender of the Image Snapshot to the message footer on all emails generated from Image Snapshot.
Health Monitor Service	Enhancement: Added alert if store location reaches reserve space threshold
User Profile	Enhancement: Added Ability to Empty the camera dock on a new session
Access Log Query Report	Enhancement: Added tracking for user initiated sequences and presets.
Multi-view Sequence Editor	Enhancement: Added permission set for users to view "all" sequences
Archive Timeline Control	Bug-Fix: Corrected errant time display of 00:00 for 12:00 PM (noon) in timeline
Archive Timeline Control	Bug-Fix: Corrected scaling of timeline to allow increased vertical scaling
Health Service Settings	Bug-Fix: Corrected condition where health service settings may be defaulted during an upgrade.
Welcome Message	Bug-Fix: Corrected condition where welcome messages where not word-wrapping text in paragraph format.

Health Monitor Service	Bug-Fix: Corrected a condition where ADAM configured sites would send duplicate health messages

3.35. Perspective VMS 3.0.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
System Galaxy Integration	Enhancement: Added User Interface Support for controlling doors with System Galaxy Software from Galaxy Control Systems.
Custom Setting Attributes	Enhancement: Remove plain text phassphrase values for increased application security
Camera Setup	Enhancement: Added resolution setting for <Optimal/Highest> resolution supported by the camera model configuration in PVMS' Camera Model Setup.
Idle Timeout	Enhancement: Allow for configuration of the system idle timeout period.
Camera Integrations	Enhancement: Added model updates to the default cameras database
Live Audio Streaming	Bug-Fix: Corrected known exclusion of live audio support present in Version 3
External Audio Stitching	Bug-Fix: Corrected known exclusion of external audio support present in Version 3
Multi-View Monitoring	Bug-Fix: Corrected incorrectly stacked layouts in Camera Viewer under select browsers
Image Snapshot	Bug-Fix: Corrected condition where a multi-sensor/multi-channel camera could display the incorrect snapshot feed for the selected channel.
Multi-Level Mapping	Bug-Fix: Corrected condition where more than 30 maps in the Maps Module tree could "lock-up" the user interface.
PTZ Control	Bug-Fix: Corrected condition where PTZ control was not relative to the position within the container.
User Profile Settings	Bug-Fix: Corrected ability to save user defined layout
Workflow: UI Action	Bug-Fix: Corrected the navigation to sub-modules of the Administration and Reporting modules as part of a workflow
Out-of-Service (Camera Setup)	Bug-Fix: Enabled ability to "Go Live" from a camera marked out-of-service (within Administration)
System Lockdown	Bug-Fix: Renaming of System Lockdown message
Whisper Alert Notification	Bug-Fix: Enabled configuration to show/hide whisper alerts.

3.36. Perspective VMS 3.0.0 (Major Release)

This version is a **Major Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
HTML5 Integration	**Ability for Perspective VMS user-interface to operate and stream video within a native HTML5-complient web-browser**
Ultra-High Resolution Support	**Ability for system to support archive and streaming of UHD resolution cameras**
Whisper Alert Notifications	**Ability to notify user of any events in fade-away dialog in bottom right of panel**
Network Bandwidth Status Alert Notification	**Ability for the system to send an email alert with Network Bandwidth exceeds 95% utilization**
Action Button Workflows Report	**Ability to display workflows associated to Action Buttons**
H.264 Support Playback	Enhancement: Improved performance on h.264 video playback
Server Health Status Email Alert	Enhancement: Improved email alerts with reciprocal send of server status upon returning online
Server Health Status Email Alert	Enhancement: Improved email alerts with alert upon Archive Server status unreachable
Server Health Status Email Alert	Enhancement: Reorient server health email alerts to improve readability in large systems
Camera Status Email Alert	Enhancement: Added camera totals for offline and online cameras to email alert
Snapshots Repository Management	Enhancement: Allow for reference snapshots to be served from Archive servers (in a distributed environment)
Snapshots Cycle Refresh Setting	Enhancement: Modified default setting for snapshot refresh from 20 seconds to 180 seconds to reduce burden on network of large systems
Video Extract Player	Enhancement: Allow for extraction playback to be viewed in full screen
Archiving Status (Analysis) Report	Enhancement: Added filtering of cameras by Server and by Store
Custom Log Level	Enhancement: Consolidated log min/max setting to one field within administration
Maps Module	Enhancement: Added ability to navigate to administration from any map
Layout Editor	Enhancement: Added ability to generate a graphic of a user-defined layout from the custom layout control
Access Log Query Report	Enhancement: Added tracking of user-initiated "Lockdown" in audit report

Edge Archive Recording Settings	Enhancement: Added system settings for edge recordings within Administration Module
Camera Models List	Enhancement: Added more column choices for the camera models list within the Administration Module
Multi-view Presets	Enhancement: Added ability to save presets as the same name, if marked private
Archive Lock Management	Enhancement: Added shortcut to open archive locks in archive module from within Administration Module
Services Administration	Enhancement: Increased timeout for slow responding server/services from remote commands in the Administration Module
Camera Integrations	Enhancement: Added model updates to the default cameras database
PVMS Archiving Log	Bug-Fix: Corrected a condition that would expose camera passwords in plain text in event logs
Fast Archive Playback Control	Bug-Fix: Adjusted Fast-Forward control on H.264 video for variable speeds to compensate for FPS of recording
Image Snapshot Reference	Bug-Fix: Corrected a condition where the continuous setting of an image snapshot may not populate correctly from a Video-codec archive
Administration Service	Bug-Fix: Corrected a condition introduced in Version 2.7.x, where deletion management could become slower than archive writes in very large systems
User Groups / Welcome Message	Bug-Fix: Corrected orphaning of welcome messages when group was deleted with welcome message attached
User-defined Schedules	Bug-Fix: Corrected condition (found with Silverlight) where the Schedules dialog could crash the browser
Frame-by-Frame Archive Playback	Bug-Fix: Corrected a condition that could cause playback to skip after fast-rewind
Install Shield	Bug-Fix: Corrected a condition with previous installs/updates would leave behind orphaned MSI packages in a temporary folder on the system volume

3.37. Perspective VMS 2.7.3 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Stores Administration	Enhancement: Improved loading time of camera store location objects in large deployments.
Server Administration	Enhancement: Improved loading time of server objects in large deployments.

Archiving Service	Enhancement: Improved memory increases due to queue buffer threading in the snapshot repository collection process.
Streaming Service	Enhancement: Improved streaming service memory utilization and memory growth on large systems.
Camera Integrations	Enhancement: Added model updates to the default cameras database
Camera Setup	Bug-Fix: Corrected a condition that would prevent camera edits of the corresponding server if the ADAM service routine was not installed on the distributed server.
Archive Audio	Bug-Fix: Corrected a condition that could result in asynchronous Audio and Video under select conditions.
Streaming Service	Bug-Fix: Improved streaming service memory utilization and memory growth
Direct Connection	Bug-Fix: Corrected a condition that resulted in Direct Connection option selection for cameras being ignored.
Real-Time Extraction	Bug-Fix: Corrected a failure condition on real-time extractions of IQinVision cameras
Image Extraction	Bug-Fix: Corrected a condition that could prohibit the deletion of an extraction by a permissioned user under select circumstances.
Image Snapshot Reference	Bug-Fix: Corrected a failure condition on camera snapshot references when set to Interval
Archive Redistribution	Bug-Fix: Corrected a procedure to allow the removal of archives past expiration on store in which the original archives were re-distributed
Audible Alert	Bug-Fix: Corrected condition where full audio file would not play.
Server Health Status Email Alert Notification	Bug-Fix: Corrected an errant email notification for servers offline when a new server is added to the system.
PVMS Streaming Log	Bug-Fix: Corrected types of errors logged in event of a streaming service failure.

3.38. Perspective VMS 2.7.2.1 (EBF Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Archive Video Extraction	Bug-Fix: Corrected a condition from Version 2.7.X that would duplicate archive transactions resulting in duplicated video segments within a video extraction
Distributed Database Connectivity	Bug-Fix: Corrected a condition from Version 2.7.X that would duplicate archive transactions resulting in erroneous duplicate data in the archives

	table within the SQL database affecting size of the table as well as query reports.

3.39. Perspective VMS 2.7.2 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
ONVIF PTZ Handler	**Added ability to add a PTZ handler for ONVIF Profile-S compliant devices**
Active Directory (Read)	Bug-Fix: Corrected a condition that would prohibit group importing from AD

3.40. Perspective VMS 2.7.1 (Maintenance Release)

This version is a **Maintenance Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
UHD Resolution Support	**Added ability to support 4K (UHD) resolutions**
Web Service SSL	Enhancement: Ensured all external links are pointing to SSL locations, removing mixed content warnings.
Autonomous Distributed Archive Management (ADAM)	Bug-Fix: Corrected a condition that could lock the cameras table resulting in false camera status reporting.
Custom Camera Attributes: Camera Overlay	Bug-Fix: Corrected a condition where Axis cameras would display the date/time header if the "Show Camera Header" attribute was deselected in Additional Attributes.
Events Panel – Archive Playback	Bug-Fix: Corrected a condition where a user without archive permissions could playback archives through tagged events in the expanded Information Panel.
Analog Encoder – Axis	Bug-Fix: Corrected default db model for Axis P7404 and 241Q to include multi-Channel.

3.41. Perspective VMS 2.7.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Autonomous Distributed Archive Management (ADAM)	**Ability for full autonomous archive management (creation, deletion, protection of archive locks and all other archive management features)**

	regardless of consistent network connectivity to a central database. ADAM allows for remote transaction logging of archive storage information during a degraded network state which allows for subsequent merging with the central database when connected.
Axis Joystick Control Integration	**Ability to leverage joystick and preset buttons from Axis Communications for navigation of PTZ and selection of pre-defined presets of compatible PTZ cameras.**
Camera Image Portfolio Report	**A printable report that shows the image snapshot of each camera in the system for assessing camera image quality, focus and field-of-view.**
Dahua Camera Integration	**Added camera model configuration for Dahua cameras.**
Huawei Camera Integration	**Added camera model configuration for Huawei cameras.**
Pelco Camera Integration	**Added camera model configuration for Pelco cameras.**
Ipsotek Analytic Events	**Added ability to receive events from Ipsotek Video Analytics.**
Nedap ANPR Integration	**Added ability to receive events from NEDAP devices.**
PC-based Joystick Integration	Enhancement: Ability to leverage joystick buttons to select defined PTZ presets. Also allows for PTZ presets to be re-ordered (via drag-and-drop functionality) for correspondence with ordered preset positions.
System Lockdown	Enhancement: Changes lockout status from non-authorized users to immediate upon initiation of the lockdown.
User Groups	Enhancement: Allow for the ability to import permissions, cameras, and maps from one group to another. This enhancement greatly aids the incorporation and configuration of groups imported from Active Directory.
Multi-View Presets	Enhancement: Allows for sharing of multi-view presets to selected groups as well as public and private access.
Multi-View Sequences	Enhancement: Allows for sharing of multi-view sequences to selected groups as well as public and private access.
System Help	Enhancement: Updated embedded help manual using a new HTML5 interface.
Report - Access Log Query	Enhancement: Audit Logging of Play/Download/Delete of Image Extractions.
IP Addressable Camera Setup	Enhancement: Allow for configuration of custom HTTP and RTSP ports per camera.
PVMS Health Monitor Service Email Distribution	Enhancement: Include versioning information in health monitor email reports footer
Workflow External Notifications	Enhancement: Added ability to attach a report from an email notification workflow action
External Audio Stitching	Bug-Fix: Corrected a condition where audio from an external IP source controller, may lose synchronization with associated camera video.

MPEG-4 Support - Playback	Bug-Fix: Corrected a condition where grey framers were interspersed during rewind of MPEG-4 video.
Import Video from Source	Bug-Fix: Corrected a timeout condition on imported videos that may have precluded select videos from logging.
Snapshots Repository	Bug-Fix: Corrected a condition where Image Snapshot Cycle request failures may result in rampant requests before camera can respond. (affected IQinVision cameras)
Neighboring Cameras – Archive	Bug-Fix: Corrected navigation error where neighboring cameras from archive would show time as the incorrect time-zone.
Image Snapshot Reference	Bug-Fix: Corrected error where the snapshot frequency would not save upon edit.

3.42. Perspective VMS 2.6.0 (Minor Release)

This version is a **Minor Release** update. There exist new features, feature enhancements and maintenance items, which include:

Product Feature Name	Description
Camera Dock - Rapid Loading	**Ability to load all visible cameras from a map to the camera dock**
Edge-based motion event detection (Axis)	**Ability to support edge-based Motion Detection alerts for Axis**
PC-based Joystick Integration	**Ability to leverage PC/USB joysticks (including Playstation and Xbox game controllers) for controlling Pan/Tilt/Zoom functionality of compatible cameras.**
Map Layout Designer (Keyboard Controls)	**Ability to utilize keyboard shortcuts to position cameras (fine-tune) on a map**
System Volume Status Email Alert Notification	**Ability for the system to detect and report via email health status exceptions if a system volume (C: Drive) is below 1.5 GB in free space.**
Real-Time Extraction	Enhancement: System should associate real-time extraction time to the camera/server time-zone rather than the client PC
Archive Threshold Control	Enhancement: Ability to add a storage size limit of archives per camera
Cross Browser Interoperability	Enhancement: Launch Out-Of-Browser if user attempts to login via Chrome or Edge browsers
Archive Video (Image) Extraction	Enhancement: Added ability to prioritize the Extraction Queue
Camera Advanced Settings	Enhancement: Allow for selection of archive stream as source for streaming service
User-defined Schedules	Enhancement: Added a column in the Settings	Schedules list view that shows current status of schedules

Area of Interest - Motion Detection	Enhancement: Modified schedule grid to drop-down selection of schedules for greater control of motion alerts scheduling
External Notifications	Enhancement: Added ability to recognize username or full name when adding an email recipient to workflow
Conditions Setup (Workflows)	Enhancement: Extend withholding time configuration value
Custom Camera Attributes	Enhancement: Optimized layout for custom camera attributes
PVMS Web Log	Enhancement: Change workflow event messages from Debug level to Informational level
Multiview Administration Layouts	Enhancement: Added ability to "un" merge the layouts in Edit Layout control
Direct Camera Interface Link	Enhancement: Added ability to open camera window (from network link in camera setup) in a new full window
User Default PTZ Control Settings	Enhancement: Added ability to invert joystick vertical navigation commands as a user preference
Camera Collection	Enhancement: Renamed Groupings to Camera Collections and moved to the Cameras container to simplify user interface and administration.
Disable Basic Authentication Setting	Enhancement: Added setting to allow for connections without basic authentication
Archiving Service	Bug-Fix: Corrected a memory leak in Archiving Service (under select conditions)
Streaming Service	Bug-Fix: Select cameras (potentially with buggy firmware) may not release sockets if disconnect not properly terminated
Administration Service	Bug-Fix: Prevented occurrence of a break in reconnecting logic when connection fails for administration service
Camera Mass Editing	Bug-Fix: Allow for separation of archive schedules and archive stores when bulk editing
Downloadable Extracts	Bug-Fix: Extraction download should not show complete if not able to download fully
Image Snapshot	Bug-Fix: Image snapshot from a video (h.264) archive better reflects exact scene at moment of capture
Frame-by-Frame Archive Playback Controls	Bug-Fix: Correct condition where rewinding one frame (in h.264) could move forward to closest iframe rather than back
User-defined Schedules	Bug-Fix: Correct condition where system would not allow schedules to become inactive if crossing over midnight
Camera Setup	Bug-Fix: Corrected an error when clicking save after GoTo (live or archive) from Administration

3.43. Perspective VMS Version 2.5.2 (Maintenance Release)

Product Feature Name	Description
Panamorph De-warping (Immervision)	**Ability to de-warp and navigate (server-side) video from a compatible IP camera with a Panamorph lens**
Archive Video (Image) Extraction	Enhancement: More efficient in Image Extraction generation based upon selectable camera resolution
Server Health Report	Enhancement: Add reporting of Analytics Service to system health reports
Multiview Administration Settings	Enhancement: Add Camera Layouts to all license levels
Streaming Service	**Bug-Fix: Corrected errant appendage to CGI string on live streaming**

3.44. Perspective VMS Version 2.5.1.1 (EBF Release)

Product Feature Name	Description
PTZ control support (Panasonic)	**Bug-Fix: Controls for vertical movement are inverted and Zoom is too stepped**
PTZ control support (Axis)	**Bug-Fix: Problem found on newer firmware of some Axis Q-series PTZ**

3.45. Perspective VMS Version 2.5.1

Product Feature Name	Description
Analytic Communications Service	**A service communicating independent analytic packages with Perspective VMS**
Camera Tamper	**An embedded video analytic that monitors the video and automatically detects camera failure or sabotage**
Camera Timeout Value	**Ability to custom define the amount of time when a service recognizes a camera stream as not connected (also known as a Timeout interval).**
Intrusion Detector / Trip-line	**An embedded video analytic that provides automated perimeter monitoring and secure area protection.**
Multiview Administration Settings	**An ability to define and show/hide both default and custom multi-view arrangements**
Object Left Detector	**An embedded video analytic that continuously monitors an area to detect objects or baggage that have been left unattended for too long in the scene**
Camera List	Enhancement: Allow for increased thumbnail in administration upon hover over a camera object.

Camera Status Testing	Enhancement: Live, archive, and snapshot stream parameters are displayed when testing each for pass or failure from the camera setup screen.
Import Video from Source	Enhancement: Allow for tagging of imported video from import wizard.
Import Video from Source	Enhancement: Allow for text description of each imported video clip.
Import Videos Administration	Enhancement: Allow for direct navigation to imported video within Archives from Administration list.
Import Videos Administration	Enhancement: Allow for post-import modification of date/time of video generation.
System Settings	Enhancement: Added ability to configure archiving service settings within a user interface of the Administration module.
Action Button Trigger	Enhancement: Allow for selectable user notification of action button success within a workflow.
Neighboring Cameras	Enhancement: An improved interface for defining neighboring camera arrangements.
Archive Locking (Archive Lock)	Enhancement: Removed archive lock from default permissions within Archive Module.
Extraction detail view	Enhancement: Added sortable column based on time extraction is generated/created
Logon-based Trigger	Enhancement: Added "Failed" login as a trigger item in workflows.
Configuration Tree	Enhancement: Reordered cameras configuration container in Administration.
Report - Access Log Query	Enhancement: Allow for search of apostrophe character in queries.
User Groups	Enhancement: Added a find/filter control on permissions dialog of User Groups.
PTZ Control	Bug-fix: Improved handling of PTZ errors on non-advanced models.
Camera Mass Editing (Bulk edit)	Bug-fix: Corrected a bug that would remove archive stores information upon bulk-edit.
Install Shield - Installation Wizard	Bug-fix: Corrected a bug that would limit the number of servers listed during a distributed installation to 29 records.
Archiving Status (Analysis) Report	Bug-fix: Modified timeout limitation for the Archive Status Report on a large dataset.

3.46. Perspective VMS Version 2.5.0

Product Feature Name	Description
Camera Bitrate/Compression Quality Adjustment	**An ability to set a value selection for compression quality (bitrate) if allowed per camera model for streaming bandwidth regulation.**

Configuration Import/Export - Camera Model	An ability to Export and Import custom camera model configurations across different systems of Perspective VMS.
Edge-based Recording Import	Ability to pull/import recordings from an SD card either from the camera or directly from the SD card
Edge Storage (Axis)	Ability to record and recall edge based storage on Axis Cameras
Event-based Trigger (Camera Input)	The ability to initiate/trigger a programmable action (via workflow routine) based a defined an input event from a camera
Extraction Editing	An ability to edit or refine extractions via editing start and end times thereby creating a second "trimmed" extraction in addition to the original.
Import Video from Source	An ability to import video files (.mp4, .mov) from an external source such as a mobile phone, tablet, or web-camera. The imported videos may be associated to a selected device and managed within the archive timeline for comparison against other camera objects during an investigation or search.
Imported Videos Administration	An ability to manage imported video information within the Administration module.
Multiple Areas of Interest - Motion Detection	Provides the user the ability to define multiple areas of interest for motion detection.
Preferred Default Aspect Ratio	Allows user to select default / preferred aspect ratio for camera (workflows maps)
Server-Generated Extraction Overlay	An ability to add metadata of a server generated overlay with camera name, date/time onto video extractions.
User Default Archive Module Preferences	Allows each user the ability to define default timeline start time and interval.
Windows 10 - Client Support	Ability for Perspective VMS to operate as a client on Windows 10
Windows 10 - Server Support	Ability for Perspective VMS Server application to operate on Windows 10
Workflows by Camera	An administrative view for showing cameras configured in a workflow.
Workflows by User	An administrative view for showing users configured in a workflow.
Workflows with Cameras Report	A report listing each workflow and associated camera(s)
Workflows with Users Report	A report listing each workflow and associated user(s)
Multi-View Monitoring	Enhancement: Provides text information of connection status when not live streaming.
PTZ Control	Enhancement: Allow for digital zoom of PTZ cameras beyond the optical zoom of the camera itself.
Camera Setup - GUI	Enhancement: Allow for ability for camera changes (additions or make active) to be reflected immediately within the same user session.

Camera Setup - GUI	Enhancement: Allow camera setup to maintain settings when switching models if the model supports the same codec options.
User Default PTZ Control Setting	Enhancement: User option to enable/disable Digital PTZ controls.
Custom User Profile	Enhancement: User profile interface reorganized to 3 distinct sections for easier management.
Camera Status Report	Enhancement: Added filters to camera status report.
Camera Status Testing	Enhancement: Expose connection string attempted if camera status test fails.
Custom Archive Stream Types	Enhancement: Change title names of archive settings to better reflect function
Snapshots Repository	Enhancement: Ability to take an image snapshot (for the snapshot repository) from an archive when no image snapshot path is available.
UI Action - Camera Viewer	Enhancement: Ability to start camera sequences as part of the workflow.
User Default Camera View Arrangement	Enhancement: Allow the user to select Borderless Multi-view as a default arrangement option.
Camera Support Tracking	Enhancement: Allow for bulk-editing of support tracking fields
Camera Viewer Overlay - Advanced Options	Enhancement: Add of feature to navigate to Administration from Archive Camera Container.
Automated Real-Time Extraction	Enhancement: Additional default values for Real-Time Extraction action in workflows.
Universal Camera Model Driver	Enhancement: Camera setup will ignore parameters not enabled by the model itself.
User Groups	Enhancement: Allow for bulk editing of user groups
Expandable Info Panel	Enhancement: Allow for individual filter resets on information panel.
Archiving Service	Bug-fix: Corrected an occurrence where a camera's date/time failure could send errant data in the archive record.
IIS App Pool / Installation Package	Bug-fix: Changed a condition that could cause the default application pool to recycle (log-out users) every 29 hours.
Print-ready views	Bug-fix: Corrected field labels on CSV exports or system reports
SQL Backup/Restore	Bug-fix: SQL utility will write a new folder if one does not exist from path configured in user interface.

3.47. Perspective VMS Version 2.4.1.1 (EBF Release)

Product Feature Name	Description
Streaming Service	Bug-Fix: Corrected random behavior noted in 2.4.1.0 that causes camera problem in authentication mechanism

3.48. Perspective VMS Version 2.4.1

Product Feature Name	Description
Custom Action (Button)	**A user-defined button that can be utilized as a trigger for workflow-based actions. The button may be customized by the configuration user in both text and graphic icon. It will appear where assigned by group permissions on the Actions menu of the Side Panel.**
Archiving Status Report	**An exportable status report of all active camera's archiving statistics including: Camera Name, Model, IP Address, Archiving Server, Store Location, Oldest Archive Date, Newest Archive Date, Missing Dates, Archive Span, Archive Schedule, Archive Codec, Retention, Motion %, Storage per Day, Total Storage Used, Archive Lock Status.**
Event-based Trigger (GUI)	**The ability to initiate/trigger a programmable action (via workflow routine) based a defined event such as an input, video analytic, or system message.**
Event-based Trigger (Behavioral)	**The ability to initiate/trigger a programmable action (via workflow routine) based a defined an event from a configured behavioral analytic device.**
Event-based Trigger (Camera)	**The ability to initiate/trigger a programmable action (via workflow routine) based a defined an event from a camera.**
Event-based Trigger (Door Alert)	**The ability to initiate/trigger a programmable action (via workflow routine) based a defined an event from a configured Door device.**
Interface Actions (GUI)	**Ability to configure a user interface action as part of a workflow**
Output Actions	**Ability to configure device output actions as part of a workflow**
User Mass Editing	**Ability to edit multiple user profiles at once (bulk edit).**
External Notifications	Enhancement: External delivery (via Email / SMS) of action notifications with snapshot
External Notifications	Enhancement: External delivery (via Email / SMS) of alarm notifications with Video
Archiving Service (Service) x64	Enhancement: When archiving service becomes overloaded, allow option to drop frames recorded to accommodate.
Archive Timeline Control	Enhancement: Enable timeline slider to encompass entire timeline to simplify user interface upon initial navigation to archive module.
Archive Timeline Control	Enhancement: Allow for larger scaling of archive thumbnails for easier viewing.
Image Extraction Search	Enhancement: Add a progress indicator when Image Extraction is in progress.

Camera Setup – GUI	Enhancement: Added indication in camera setup if variable FPS and/or Resolution are not able to be modified
Camera Setup - GUI	Enhancement: Allows users to add stores directly from Camera Setup page
Camera Setup - GUI	Enhancement: On Edit Camera page should have ability to navigate live and archives
Camera List	Enhancement: Ability to sort on Camera Name, Model, Description, IP, Resolution or Active
Camera List	Enhancement: Ability for sorting by server and store information in the camera list
Camera Icon Set	Enhancement: Added a default icon set for doors
Cross Browser Interoperability	Enhancement: Allow for detection if Google Chrome browser is blocking NPAPI and produce instructions on enabling
ONVIF Camera Discovery	Enhancement: Allow for detection if SSDP service is not running when attempting to use Camera Discovery and provides notification to user
Camera Status Report	Enhancement: Camera Status Report will show cameras that are marked Out-of-Service
Multiple Aspect Ratio Viewing	Enhancement: Allow for 9:16 aspect ratio viewing containers
Welcome and Login (Module)	Enhancement: Keep Top Navigation bar in Welcome Module
System Health Status Email Alert Notification	Enhancement: Health email displays online/offline column next to stalled archives for easier troubleshooting.
Add Users	Enhancement: Alphabetize groups in Add Users dialog box
Add Users	Enhancement: Allow filtering of users on username or full name
Add Users	Enhancement: Provide indication on Users list which users were added via AD
Custom Log Level	Enhancement: Allow for ability to set logging levels for all services from the General Settings
Archiving Service (Service) x64	Bug-fix: Addressed archiving service memory leak (h.264 archiving)
Video Extract Player	Bug-fix: Corrected an issue where video extraction (of large MPX video) were not compiling correctly for external playback.
Multi-Language Support (Spanish)	Bug-fix: Correct various language labels for Spanish translation
AXIS Camera Integration	Bug-fix: Correct problem found in Axis P5534 models whereby without the camera number set it is not controllable

3.49. Perspective VMS Version 2.4.0

Product Feature Name	Description

Archiving History Report	Ability to report on statistical information in graphical format of archive storage utilization per day.
Archiving Status Report	An exportable status report of all active camera's archiving statistics including: Camera Name, Model, IP Address, Archiving Server, Store Location, Oldest Archive Date, Newest Archive Date, Missing Dates, Archive Span, Archive Schedule, Archive Codec, Retention, Motion %, Storage per Day, Total Storage Used, Archive Lock Status.
Audio Streaming (Mobotix)	Ability for audio streaming for Mobotix Cameras
Camera Status Report	An exportable status report of current camera status along with support reference information.
Camera Support Tracking	An ability to annotate reference information for support items per each camera object.
Conditions Setup	Ability to define scheduling conditions for enabling a workflow which consists of defined triggers and customized actions.
Enhanced Recording	An ability for PVMS to enhance normal camera configurations (FPS and Resolution) to a changed state on trigger-able (alarm/alert) conditions defined in a workflow.
External Notifications	An ability to notify externally of PVMS (such as email) on trigger-able (alarm/alert) conditions defined in a workflow.
Logon-based Trigger	The ability to initiate/trigger a programmable action (via workflow routine) based on a user's login.
PTZ Preset Action	An ability to move to a PTZ preset as a result of a workflow on trigger-able (alarm/alert) conditions defined in a workflow.
Server Health Report	Exportable status report of current server status along with support reference information.
System Lockdown	An ability to "one-click" lockdown the video surveillance system enabling access for only select users (based on permission assignments)
Time-based Trigger	The ability to initiate/trigger a programmable action (via workflow routine) based on a specific or recurring time.
Visual Service Status Indication	A visual alert within the events panel, annotating the service status for quick reference.
Workflows Component	Workflows are a logical association of objects, triggers, conditions and actions that allow for integration of physical and logical inputs into on-screen display actions or other notification alerts.
PVMS Favicon (Logo) Update	Enhancement: Updated with new PVMS Logo
Email Settings	Enhancement: Move IoC Email Settings to Database (Administration | Settings)
Health Jobs Scheduler Settings	Enhancement: Move Health Jobs Scheduler Settings to Database (Administration | Settings)

Configuration Software Licensing	Enhancement: Simple license option added for configuration only
Archive Stores	Enhancement: Addition of default Archive Store to new installation (for easier configuration).
Camera List Configuration	Enhancement: Allow for in-line editing of camera information within Camera's administration
Copy Administration Records	Bug-fix: System will not copy picture when copying user record in administration
Copy Administration Records	Bug-fix: System will keep focus on parent record after copy action
Camera Setup	Enhancement: Allow for duplicate IP addressing of cameras for testing or multi-stream
Archive Timeline Control	Enhancement: Add control to minimize Timeline Legend
Archive Timeline Control	Bug-fix: Remove condition where timeline control could become too detailed causing errors with Silverlight plug-in
Arecont Integration	Enhancement: Add multi-sensor support of Arecont models to default database configuration
Mobotix Integration	Enhancement: Add multi-sensor support of Mobotix models to default database configuration
About Perspective VMS	Enhancement: Add information for System Maintenance expiration to About page
Active User Sessions	Enhancement: Change "Delete" session to "Terminate" session for clarification purposes.

3.50. Perspective VMS Version 2.3.1.0 (EBF Release)

Product Feature Name	Description
Archive Store Threshold Management	Bug-fix: Resolve condition were moving a camera from one store to another could disable process of deleting archives meeting age threshold
Archive Timeline Control	Bug-fix: Resolve a memory leak in populating thumbnails from H.264 archives
MJPEG Image Extractions	Bug-fix: Resolve a condition for Image Extractions not generating for Motion JPEG archives
Image Extraction Search	Bug-fix: Resolve a condition that limits users from seeing "private" extractions created by the user.

3.51. Perspective VMS Version 2.3.0

Product Feature Name	Description

Archive Threshold Control	**An ability that allows a user to determine the condition to remove archives (number of target days achieved or based on drive space only).**
Audio streaming integration (IQEye)	**Audio Integration for all general IQinVision camera models**
Automated Database Size Maintenance	**An ability to automatically maintain a database size so that it does not exceed 10GB (for SQL Express Version deployments).**
Borderless Multi-view	**An ability to view multi-view arrangements without pixel space or borders between containers.**
Camera Dock - Rapid Map Callup	**An ability that allows users to navigate to maps associated to cameras within the dock.**
Camera Status Testing	**An ability inside of camera configuration to test the camera stream status.**
Custom Logon Script/Message	**An ability to create a custom message for users logging into Perspective VMS. This message can be a one-time acceptance by the user, or persistent for each access attempt to the software. The message(s) may be custom tailored for each permission group and multiple messages may be prioritized or ranked for sequential viewing and acknowledgement.**
Logon Acceptance Message Report	**Provides the ability to generate a report for all users who have agreed to the Custom Logon Message Agreement.**
Multi-channel / Multi-Sensor Camera Model Setup	**Ability to configure multi-sensor / multi-channel cameras**
Scheduled Recording	**An ability to schedule various parameters of recording on camera during selected schedules**
SQL Backup/Restore	**A feature that would allow for an SQL database backup routine to be initiated and/or scheduled through PVMS**
Full-screen Typing	Enhancement: Resolved an issue where users were not able to type while in full screen mode.
Fast-Find Analytic	Enhancement: Add multiple clip extract button to Fast-Find Search results
Panasonic PTZ support	Enhancement: Panasonic PTZ Support Handler
PTZ Control	Enhancement: Added digital PTZ support
NTSC/PAL support	Enhancement: Allow for regional resolution support of cameras based on their supported values for NTSC and PAL.
Services (64-bit)	Enhancement: Allowing all services to leverage a 64-bit server infrastructure. This increases memory utilization per service as well as optimizes the host server/pc.
Image Extraction Queue	Enhancement: Allow for the deletion of a pending Image Extraction
SSL Support	Enhancement: Allow for easier configuration of SSL by a select checkbox in Server Administration

Archived Neighboring Cameras	Enhancement: Allow Neighboring Cameras to operate and navigate from Archive Playback in Camera Module
Door Alerts	Enhancement: Changed the grid format for pop-up display of door events
Map Locator	Enhancement: An ability to zoom in map (launched from Map Locator)
Map Administration	Enhancement: An ability to download previously saved maps
Maps Module	Enhancement: Need ability to present lower resolution maps to consolidate bandwidth
Multiple Aspect Ratio Viewing	Enhancement: Support for 8:3 aspect ratios
User Profile	Enhancement: Allow for user default map selection
Tagging Preview	Bug-Fix: Resolved a scenario where a tag will disappear from a preview container.
Snapshot Preview	Bug-Fix: Resolved a scenario where the snapshot preview was generating in low resolution
Fast Archive Playback Control (h.264)	Bug-Fix: Resolved a scenario where multi-speed rewind was not performing in h.264 archives

3.52. Perspective VMS Version 2.2.0

Product Feature Name	Description
Archive Stores	**Archive Stores provide the ability to dynamically store archived video across one or multiple drive volumes.**
Audio out integration (Axis)	**Audio out Integration for all general Axis camera models**
Bi-Directional Audio	**Ability to stream audio out via an on-screen control within the camera overlay of Perspective VMS. The feature utilizes the PC microphone and audio-output on selected cameras.**
Camera Scan	**Adds a default Multi-view sequence of all cameras the user has access to, enabling the user to quickly scan cameras one after another in a one-up configuration.**
Cameras Service Report	**An ability to run a report showing cameras marked as Out-of-Service**
Group Permissions Report	**An ability to run a report show all Groups and inherent permissions of each group for reference.**
License Key Entry	**Area under help to add license key information**
S2 Enterprise Integration - Pull Events	**Integration of S-2 Enterprise PACS for association of Access Control events and managed video surveillance.**
S2 NetBox Integration - Pull Events	**Integration of S-2 NetBox PACS for association of Access Control events and managed video surveillance.**
SQL Server 2014 Express Integration	**Provides the ability to operate and run using Microsoft SQL Server 2014 (Express).**
SQL Server 2014 Integration	**Provides the ability to operate and run using Microsoft SQL Server 2014.**

TDSi Integration - Pull Events	Integration of TDSi readers for event association to cameras
User Default Map Selection	**Provides the user the capability to select their own default map when logging into the Perspective VMS.**
Mobile Streaming Enhancement	**Mobile streaming service enhancement for iOS and Android devices**
Archive Playback Enhancement	Enhancement: Modified h.264 archive video playback increasing responsiveness to rewind.
Android OS	Enhancement: For connection, live streaming, and archive playback using the PVMS App on Android OS platforms 4.4
Custom Overlay Height	Enhancement: Allowing for ignoring pixels of a camera on-screen display overlay from the bottom (as well as the top) of the frame.
Multi-View Dynamic Resolution	Enhancement: For dynamic resolution feature of camera viewing in a multi-view setting allowing for the reconnect of the stream when navigating to a larger container size.
Events Panel Navigation	Enhancement: Allowing for Next/Previous controls on the information panel to review events.
Touch Enabled	Enhancement: For Surface Pro 3 touch inputs
Archive Management	Enhancement: To overall archive file management accounting for orphaned system files
Archive Service Watchdog	Enhancement: To configurable service watchdog utility for monitoring the archiving service

3.53.   Perspective VMS Version 2.1.1.1/2 (EBF Releases)

Product Feature Name	Description
Camera Health Monitor Check Interval	**Ability to custom configure intervals and thresholds for health monitoring on Cameras, Servers, External Systems, and Drive Information**
Camera Health Status Email Alert Notification	**Ability for the system to detect and report via email health status exceptions such as non-responsive services, cameras offline, or excessive database size growth.**
Camera Info and Server Status Health Monitor Check Interval	**Ability to custom configure intervals and thresholds for health monitoring on Cameras, Servers, External Systems, and Drive Information**
Database Health Status Email Alert Notification	**Ability for the system to detect and report via email health status exceptions such as non-responsive services, cameras offline, or excessive database size growth.**
External System Health Monitor Check Interval	**Ability to custom configure intervals and thresholds for health monitoring on Cameras, Servers, External Systems, and Drive Information**

Operating System Health Status Email Alert Notification	Ability for the system to detect and report via email health status exceptions such as non-responsive services, cameras offline, or excessive database size growth.
Server and Drive Info Health Monitor Check Interval	Ability to custom configure intervals and thresholds for health monitoring on Cameras, Servers, External Systems, and Drive Information
Server Health Status Email Alert Notification	Ability for the system to detect and report via email health status exceptions such as non-responsive services, cameras offline, or excessive database size growth.
System Health Status Email Alert Notification	Ability for the system to detect and report via email health status exceptions such as non-responsive services, cameras offline, or excessive database size growth.
User Default Map Selection	Provides the user the capability to select their own default map when logging into the Perspective VMS.
Windows Services Health Monitor Check Interval	Ability to custom configure intervals and thresholds for health monitoring on Cameras, Servers, External Systems, and Drive Information
Archive Playback	Enhancement: For h.264 archive video playback increasing responsiveness to rewind.
Mobile Streaming	Enhancement: For Mobile streaming service enhancement for iOS and Android devices
Mobotix Integration	Bug-Fix: Corrected condition where Mobotix cameras would not archive

3.54. Perspective VMS Version 2.1.1

Product Feature Name	Description
Camera Scan Sequence	Adds a default Multi-view sequence of all cameras the user has access to, enabling the user to quickly scan cameras one after another in a one-up configuration.
Controller Types	Ability within the Integrations section of Administration for administering types of 3rd-party controllers and connectors.
Devices Administration	Ability within the Integrations section of Administration for naming and associating 3rd party security devices with cameras for use in alerts and workflows.
S2 Enterprise Integration – Pull Events	Integration of S-2 Enterprise PACS for association of Access Control events and managed video surveillance.
Administration Interface Controls for Integrations	Controller Types, Controllers, Event Controllers, Devices, and Event Levels have been added to administration for configuration of 3rd-party devices and controllers.
Live Streaming	Enhancement:

Image (Frame per Hour) Archiving	Enhancement: Improves archiving utilization for time-lapse video storage.
Streaming/Archiving for (Arecont)	Enhancement: Improves performance handling of Arecont manufactured cameras.
Extract handling from Global Controls	Enhancement: Improves time association of extracts when launched from a global control interface.
Camera Setup	Enhancement: Allows for text fields (hostnames) on camera setup larger than 31 characters.
Archive Timeline Control	Enhancement: Added a refresh button to archive timeline for better forensic analysis.
System Auditing	Enhancement: Added Neighboring camera administration tasks to system audit log
System Help Information	Enhancement: Added Company Name as an editable field in Settings for display on System Help Menu.
Multi-view Arrangements	Enhancement: Added a 5x5 and 5x4 (4x5) layouts to the default multi-view arrangements
Enhanced General User Interface	Enhancement: Various tool-tip and layout enhancements to improve the usability of the general layout and graphical-user-interface (GUI).
Fast-Archive Playback Control	**Bug-Fix: Improved responsiveness and synchronization of global controls during FF and REW actions.**
SSL	**Bug-Fix: Corrected implementation errors in SSL**
Mobile Streaming	**Bug-Fix: Improved and corrected live streaming on iOS and Android devices.**
Live Streaming	**Bug-Fix: Removes a condition that may have caused a camera flicker effect when live viewing Motion-JPG cameras.**

3.55. Perspective VMS Version 2.1.0.1 (EBF Release)

Product Feature Name	Description
Mobile Streaming (iOS)	**Bug-Fix: Corrected Streaming on iOS mobile devices**

3.56. Perspective VMS Version 2.1.0

Product Feature Name	Description
Archive Locking	**Provides the user the ability to flag or mark sections of times (or entire days) for exemption from the normal archive deletion routines**
Open API/SDK	**Provides the ability to render live streaming or archive playback at a set date/time in a controlled browser window of Perspective VMS based on**

	an application programmable interface (API) call. Typically associated with Access Control or Intrusion Detection software systems
Camera API Report	**Provides a report showing all cameras with camera ID and description**
Archive Playback	Enhancement: Improves responsiveness of Rewind and Fast-Forward controls in archive playback
Welcome Module	Enhancement: Added navigation from the Welcome Screen to navigate to Reports
System Help	Enhancement: Added navigation to Training Tutorials from System Help
Customized Support Information	Enhancement: Now allows for custom company name on support tab along with phone number and hours of operation.
Authorized Pass-Through Authentication	Enhancement: Pass-through authentication for 3rd-party integrations allow an administrative function to generate login strings for each user.
Neighboring Cameras – Archive Module	Enhancement: Enhances the users' ability to rewind from a live view camera and call-up associated cameras using the Neighboring feature at the same date/time of the camera being reviewed from Camera Viewer.
Administration Module	Enhancement: Allowing for sort of items such as Last Login and Name fields
Camera Models Setup	Enhancement: Various camera model enhancements for supported camera manufacturers.
General User Interface	Enhancement: Various tool-tip and layout enhancements to improve the usability of the general layout and graphical-user-interface (GUI).
Multi-View Synchronization	Bug-Fix: Improves upon a condition resulting in multi-view latency in Camera Viewer
Multi-View Sequencing	Bug-Fix: Improves upon long-duration play of the multi-view sequence
Full-Screen in Mixed Aspect Ratio	Bug-Fix: Improves the layout and functionality of running a full-screen view from a layout containing both 4:3 and 16:9 layouts
Camera Dock	Bug-Fix: Improves the camera streaming when pulling into and out of the camera dock

3.57. Perspective VMS Version 2.0.0

Product Feature Name	Description
Configuration Reports	**An area inside of the reports module for launching the administration print-views and configuration reports**
EULA Report	**Provides the ability to generate a report for all users who have agreed to the End User License Agreement.**
User-defined Schedules	**A schedule interface tool designed for event/action parameters but that will also customize further the times to record, archive, search for motion or other items.**

Camera/Archive Location Reports	**Adds a report that associates cameras with archiving location.**
Active Directory Integration	Enhancement: Adds the ability to incorporate group permissions from Active Directory into Perspective VMS during the synchronization process.
H.264 Archiving (Axis)	Enhancement: Adds the ability to record variable frame rates for Axis cameras using the H.264 codec.
Install Shield	Enhancement: Adds the ability to configure windows user settings and create application shortcuts during the installation.
Enhanced camera model support	Enhancement: Various camera model enhancements for supported camera manufacturers.
Enhanced Error Management (Out-of-Browser, Neighboring Cameras, SQL Scheduling)	Enhancement: Various enhanced error message corrections and dialog descriptions.
Enhanced General User Interface	Enhancement: Various tool-tip and layout enhancements to improve the usability of the general layout and graphical-user-interface (GUI).
Administration Service	Bug-Fix: Removes the risk for errant archive deletion upon a database connection failure while the administration service is running.
Archive Module Timeline	Bug-Fix: Corrects an error where not all archive days appear on the timeline.
Direct Connection	Bug-Fix: Corrects an error where PTZ cameras in Direct-mode may become inoperable upon edit.
Out-of-Browser user management	Bug-Fix: Corrects an error where a user logged into the Out-of-Browser application is not cleared from the Active Sessions.

3.58. Perspective VMS Version 1.5.1.2

Product Feature Name	Description
Motion-JPEG Support - Playback	Bug-Fix: Corrected Pause on target of video
Administration Service	Bug-Fix: Corrected error causing deletion of valid archives upon upgrade
Real-Time Extraction	Bug-Fix: Corrected a User-Interface error upon execution of RTE

3.59. Perspective VMS Version 1.5.1

Product Feature Name	Description
Default Camera Resolutions List	**Added default set of resolutions for cameras**
MJPEG Client-Side Streaming (IQ)	**Added ability for IQinVision cameras to operate in Direct Mode**

Archive Playback	Bug-Fix: Corrected Archived Audio not pausing on playback
Streaming Service	Bug-Fix: Corrected problem with External Audio source crashing the streaming service
Global Search	Bug-Fix: Corrected window being orphaned on Welcome Module

3.60. Perspective VMS Version 1.5.0

Product Feature Name	Description
Automatic Event Purging	The ability to schedule and purge image snapshots of past events from the database at a desired number of days.
Fast-Find (Image)	Ability to quickly search a camera field of view for motion events in a user-defined area by drawing a box and setting a sensitivity threshold.
Line Crossing Report (Axis)	Exportable reports for a line crossing analytic on Axis cameras.
Multiple Aspect Ratio Viewing	Ability for custom defined multiple live streaming camera view arrangements using 4:3 or 16:9 or 16:10 ratios with several pre-defined templates for easy and fast viewing configurations.
Out of Service Identifier	A capability within the User Interface to annotate cameras that are Out-of-Service for planned / remedy maintenance or pre-staging of future installation cameras to alert the user of a known out-of-service condition.
Private Labeling	Ability to modify the user-interface with private labeling options
RFID Reports	Ability to filter RFID data and run printable RFID transaction reports.
SQL Server 2012 Express Integration	Provides the ability to operate and run using Microsoft SQL Server 2012 R2 (Express).
SQL Server 2012 Integration	Provides the ability to operate and run using Microsoft SQL Server 2012.
Windows 2012 Server - Client Support	Ability for Perspective VMS to operate as a client on Windows 2012 Server
Windows 2012 - Server Support	Ability for Perspective VMS to operate as a server on Windows 2012 Server
Windows 8 - Server Support	Ability for Perspective VMS Server application to operate on Windows 8

3.61. Perspective VMS Version 1.4.1

Product Feature Name	Description
Live Streaming (Proxy) - H264	Ability to proxy camera streams via the streaming server to workstations where direct connection is unavailable using selectable H264 parameters
OnVIF Profile-S Integration	An ONVIF device compliant to the Profile S is an ONVIF device that sends video data over an IP network to a client. The Profile S also includes support for PTZ, audio and metadata streaming, and relay outputs if

	those features are present on the device. For example, a device compliant to the Profile S may be an IP network camera or an encoder device.
User Default PTZ Control Settings	**User profile options allow the user to select their default method of PTZ control (Joystick, Click-to-Center, or Click-to-Zoom)**
Unlimited Archive Settings	**Enhancement: Corrected exceptions in saving new archive settings and enhanced ability to save as Frames per "Hour" for time-lapse recording**
Fast Archive Playback Control	Enhancement: Corrected fast-rewind and fast-forward features for Video archives (H264/MPEG)
External Audio Stitching	Enhancement: Corrected minor distortions in audio quality from external IP sources.
Downloadable Extracts	Enhancement: Lowered default compression to increase overall extracted video quality.
Snapshots Repository	Enhancement: Added a global snapshot repository path in Administration. This allows for easier upgrade migration for distributed systems.
Windows 2003 Server - Server Support	Enhancement: Added install shield support for Windows 2003 server.
Multi-view Presets	Enhancement: Allow for default alpha-numeric ordering of public and private preset lists.
Multi-Language Support (Russian)	Enhancement: Corrected an issue logging in with a Russian Language user.
H.264 Archiving	Bug-Fix: Corrected condition that could result in an extraction not stitching the full time period.
Fast Archive Playback Control	Bug-Fix: Fast-forward/fast-playback does not function smooth on MJPEG at 4X

3.62. Perspective VMS Version 1.4.0.1/2 (EBF Releases)

Product Feature Name	Description
Installation Package/Wizard	Enhancement: Disallow installation attempts on non-supported Operating Systems

3.63. Perspective VMS Version 1.4.0 (Minor Release)

Product Feature Name	Description
Audio streaming integration client-side/Direct (Axis)	**Audio Integration for all general Axis camera models (Series: M, P, Q, 200) in direct-mode connections.**

Axis Cross Line Detection	Allows for the incorporation of Cross-Line Analytic behavior from Axis Communications to Perspective VMS.
EULA	A one-time acknowledgement of the End-User License Agreement
External Audio Stitching	Provides the ability to combine an external audio source (secondary IP source) with camera
H.264 Integration (Brickcom)	Basic streaming integration with IP cameras
MJPEG Server-Side Streaming (Brickcom)	Basic streaming integration with IP cameras
MJPEG Server-Side Streaming (Mobotix)	Basic streaming integration with Mobotix IP cameras
MxPEG Server-Side Streaming (Mobotix)	Basic streaming integration with Mobotix IP cameras
ONVIF Camera Discovery	Provides administrators and systems integrators the ability to add cameras directly from the network using a discovery tool. (Applicable to cameras that are ONVIF-Profile but S compliant).
PTZ Support (HIK Vision)	Basic streaming integration with HIK IP cameras
PVMS Favicon	The use of a browser icon shall be available to differentiate the application from other web/browser tabs.
PVMS Debugging webpage	A tool for monitoring active streaming connections within PVMS for troubleshooting and debug purposes.
Support Information Administration	An area within system settings for administering support information
Time-lapse Extractions	Provides the ability to record video in increments of Frames per Hour(s), thereby allowing for archive viewing or video extractions spanning multiple weeks, months, or even years.
Archive Timeline Control	Enhancement: Add Day Intervals for selection
Custom Video (Image) Archive Settings	Enhancement: Add ability to select Frames "per Hour"
Add Users	Enhancement: Add ability to note user's mobile number to their user account
Display Active User Sessions	Enhancement: Add ability to display mobile users' active session
PTZ Lock	Enhancement: Make PTZ lock more readily apparent to user
Camera List	Enhancement: Added ability to delete a camera from the list
Global Search	Enhancement: Modify close experience for users
Archive Management	Bug-Fix: Correct inconsistent behavior of Administration service cleaning expired archive files
Archiving Service	Bug-Fix: Addressed a potential memory leak in the archiving service
H.264 Support – Playback	Bug-Fix: Correct date/time stamp movement on h.264 playback
H.264 Support - Playback	Bug-Fix: Correct condition where no thumbnail image was presented

Live Audio Streaming	Bug-Fix: Correct condition where proxy audio streaming interrupts live video
Live Audio Streaming	Bug-Fix: Correct condition where live audio could stop after 3+ minutes
Custom Video (H.246/MPEG4) Archive Settings	Bug-Fix: Correct video type archive setting
Extraction detail view	Bug-Fix: Correct where older extractions where "not found" in Perspective VMS Version 1.3.1
Copy Administration Records	Bug-Fix: Correct copy of groups access when copy of cameras. Error introduced in Perspective VMS Version 1.3.1
Motion Event Pop-up (Preview) Window	Bug-Fix: Correct System Memory Error
Dynamic Camera Icons	Bug-Fix: Correct where thumbnails may maintain on the map after Hover-off
Dynamic Camera Icons	Bug-Fix: Alphabetize list
Dynamic Camera Icons	Bug-Fix: Corrected highlighting of camera list
Multi-View Monitoring	Bug-Fix: Corrected where "View Arrangements" does not appear on first click
Clip Length	Bug-Fix: Corrected Tool-tip on Clip Length setting
Open in Administration	Bug-Fix: Corrected label on button from Camera Overlay
Global Search	Bug-Fix: Corrected where dialog box could cause system to become inoperable
User Groups	Bug-Fix: Corrected issue where permission checkboxes appear to be checked on initial load

3.64. Perspective VMS Version 1.3.1 (Maintenance Release)

Product Feature Name	Description
Alert Annotations	Ability to track alert acknowledgement by user/date as well as modify event to mark as active for additional follow up. Marked active event transactions are also tracked by user and date.
H.264 Support (HIK Vision)	Basic streaming integration with HIK IP cameras
Neighboring Cameras - Archive	Provides the ability while in archive playback mode within the camera viewer module, to associate cameras together in custom multi-view arrangement of a logical group for quick display of "neighbor" cameras or devices.
MJPEG Support (HIK Vision)	Basic streaming integration with HIK IP cameras
Open (camera) in Administration	Ability to open the camera administration (based on permissions) from the camera overlay

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Services Administration	A configuration area within Perspective VMS to monitor and administer actions performed on PVMS Services such as Start, Stop, and Restart
Acknowledge Response Report	Exportable reports for event acknowledgement / responses by users
Email Settings Configuration	Area within settings to administer default database email server settings
Default Motion Email Settings	Area in configuration xmls for establishing default motion email alerts.
HIK Integration (H.264)	Streaming/Archiving integration with HIK h.264 Codec
HIK Integration (MJPEG)	Streaming/Archiving integration with HIK Motion-JPEG Codec
Administration (User Groups)	Enhancement: Added several default sample user groups with tiered permission sets to assist in rapid installation.
Dynamic Camera View Selector	Enhancement: Added the ability to load large number of cameras (10,000+)
Downloadable Extracts	Enhancement: Added ability to download extractions as standard .mp4 format
Camera Setup	Enhancement: Added the ability to hide the dialog box to restart services each time a camera modification is made in Camera Administration.
Installation Wizard	Enhancement: Simplified process of adding an admin password during the installation wizard.
Map Layout Designer	Enhancement: Added ability to show "inactive" cameras and place them onto a map.
PTZ Control (Click to Zoom)	Enhancement: Ability to Pan/Tilt/Zoom by using a "Click to Zoom" control
PTZ Control (Click to Center)	Enhancement: Ability to Pan/Tilt/Zoom by using a "Click to Center" control
Alert annotations	Enhancement: Ability to un-acknowledge alerts
Print-ready Views	Enhancement: Added the ability, by using a right-click in the administration table, for the user to define which columns should appear in the print-ready view as well as adding ability to sort each column.
Login	Bug-Fix: A correction was made to properly handle Caps Lock which had been incorrect in Version 1.3.0
PTZ Full Screen	Bug-Fix: An error occurred when navigating a PTZ camera out of full screen where the camera would zoom out incorrectly. This has been corrected.
User Profile	Bug-Fix: When launching the user profile widget from the top navigation bar a generic error appeared and has been corrected.
User Account Permissions	Bug-Fix: The multi-login permission was nested in an incorrect hierarchy and has been corrected.

3.65. Perspective VMS Version 1.3.0 (Minor Release)

Product Feature Name	Description

Audio Archiving	**Ability to record/archive audio synchronized with video**
Audio streaming integration (Axis)	**Audio Integration for all general Axis camera models (Series: M, P, Q, 200)**
NAS Support	**Ability to support Network Area Storage**
Windows 8/8.1 – Client Support	**Ability to run Perspective VMS client on Windows 8 Operating Systems**
Android Mobile App Support	**Provides the ability to view Perspective VMS installations on an Android powered mobile device**
iOS Mobile App Support	**Provides the ability to view Perspective VMS installations on an iOS powered mobile device**
Clip Length (Archive Settings)	**Ability to set defined clip lengths for recorded video chunks (in minutes)**
Door Alert Message	**Ability to receive door-based events**
Full-screen Archive Monitoring	**Ability to monitor video in full screen mode**
Panoramic Camera Support (Axis)	**Panoramic camera support for Axis models with 360-degree FOV. Will display Overview, Panoramic, and Quad View support.**
SSL Support	**Ability to support SSL web services for enhanced browsing security.**
Remote Software Updates	Enhancement: Allowing for wizard-based updating of Software
Updated Permissions Control and Support	Enhancement: Introduction of a new Administration/Configuration permissions tool for distributed control of User Group permissions
Global Search	Enhancement: Added image extraction parameters to be included in Global Search feature
Megapixel Support	Enhancement: Increased functionality of megapixel support in live and archived viewing
Multi-Monitor Support	Enhancement: Increased functionality of multi-monitor support by allowing user to preserve full-screen in out-of-focus monitor
PTZ Handler Support	Enhancement: Increased use of PTZ handler controls to accommodate alternate PTZ types
Browser Controls	Enhancement: Introduction of controls for notification warnings if exiting the browser window and the ability to operate full screen browsers in multiple monitors regardless of application in use.
IPv6 / Hostname Support	Enhancement: Allow for support of IPv6 and Hostname addressing of Cameras and Servers.
SQL Messaging	Enhancement: Simplify error messaging when database connectivity is lost.
Snapshot Repository	Enhancement: Allow for defined capture of snapshot on fixed interval or on-demand.
Multi-view Monitoring	Enhancement: Allow for fitting video to fill screen
Extractions Download	Bug-Fix: Correct permissions restriction for downloading extraction based on group permissions setting

Informational Camera Header	Bug-Fix: Correct bug with live view status not changing on disconnect
Multi-View Presets	Bug-Fix: Correct condition where preset could errantly revert to another selection.

3.66. Perspective VMS Version 1.2.2.1 (EBF Release)

Product Feature Name	Description
Custom Training URL	**Offers users the ability to modify web-based training locations for end-users**
User Groups	Enhancement: Added ability allowing for deletion of a group with users assigned.
Archive Video Extractions	Enhancement: Add checkbox to open extractions list upon close of dialog box
Cross-Browser Interoperability	Enhancement: Add a limitation warning when clicking the "back" button in web-browsers
Last-Login Report	Bug-Fix: Corrected date format to US Standards
Access Log Query Report	Bug-Fix: Corrected .NET error upon certain selections and print function of report
Access Log Query Report	Bug-Fix: Corrected limitations of report not finishing before reaching end
PTZ Support (Axis)	Bug-Fix: Corrected condition when Axis PTZs would become unresponsive during direct mode configuration.
Multi-Level Mapping	Bug-Fix: Corrected condition where top-map association could become incorrect

3.67. Perspective VMS Version 1.2.2 (Maintenance Release)

Product Feature Name	Description
Access Log Query Report	Enhancement: Allow access log reports visible on default permissions groups
Camera Models List	Enhancement: Add camera part numbers to camera models list

3.68. Perspective VMS Version 1.2.1.1 (EBF Release)

Product Feature Name	Description
Last Login Report	**Provides administrators with at-a-glance "last-login" reporting and audit of users who have logged into Perspective.**
PTZ Control (Bosch)	**Added integration for Bosch PTZ Controls**
MJPEG Support (Bosch)	Enhancement: Added more default models to default database

3.69. Perspective VMS Version 1.2.1 (Maintenance Release)

Product Feature Name	Description
MJPEG Support (Bosch)	Motion-JPEG Integration for all Bosch BVIP Cameras
Enhanced System Help	Added embedded administration help section
Update to Global Search	Enhancement: allowing for quick Camera Call-ups from Global Search
System Help	Enhancement: Incorporate administration guide into Help links
User Groups	Enhancement: Allow for Events to be a permissioned item per group
Custom Archive Stream Definitions	Enhancement: Added more default choices for Global Archive Settings
Camera Models Setup	Enhancement: Edit category name and form to simplify setup
Custom Icons	Bug-fix: Corrected an error that could appear when deleting an icon associated to a Site
Global Search	Bug-Fix: Corrected camera search results not populating in correct view
Maps Module	Bug-Fix: Corrected condition where map items could cluster together on-load
Share View	Bug-Fix: Corrected condition where cameras within dock were not populated on share

3.70. Perspective VMS Version 1.2.0.1 (EBF Release)

Product Feature Name	Description
Sites	Enhancement: Simplify nomenclature of sites within administration
Multi-Level Mapping	Bug-Fix: Correct hover-off behavior of map dialog search

3.71. Perspective VMS Version 1.2.0 (Minor Release)

Product Feature Name	Description
Dynamic Resolution	Ability for selected cameras with multiple resolution attributes to stream at a size appropriate for larger and smaller container sizes, making streaming more efficient overall.
H.264 Support (Axis)	H.264 Integration for all general Axis camera models (Series: M, P, Q, 200)
Agent Vi Edge Analytic Integration	Integration with Agent Vi Video Analytics
DNA Fusion Integration - PACS Video Call-up	Integration Feature that calls up video within Open Options DNA Fusion (Access Control)
Custom Archive Stream Definitions	Allows for custom string handling of archive types
Printable Settings List	Ability to print the system settings parameters.

Camera Dock Camera Setting	Enhancement: Allow for a custom "max" number of cameras in the dock
Behavior Events	Enhancement: Allow for associating devices (Cameras) to Behavior Events
Motion Events	Bug-Fix: Correct event navigation to beginning of clip
System Help	Bug-Fix: Correct errant link
Extraction and Recording Settings	Bug-Fix: Correct default path

3.72. Perspective VMS Version 1.1.1/2/3/4 (EBF Releases)

Product Feature Name	Sales Description
Live Audio Streaming	**Ability to stream live audio back to PVMS**
Video Analytics	**Ability to incorporate 3rd-party behavior-based video analytics within the Perspective VMS Events container**
Map Locator	**The quick locate function allows the user to find the location of any camera on one (or multiple maps) from within the Camera Viewer. Any map the selected camera is associated with will be displayed in a quick preview window**
Fit Window Viewing	**Ability for the user to "Fill" or "Fit" the viewing area by not constraining video feeds to maintain defined aspect ratios.**
Dynamic Camera Icons	**Icons change state based on status (alarm/alert, service/no service)**
VMware Workstation Integration	**Ability for the application to be installed and maintained on a VMware instance**
Camera Viewer Overlay	Enhancement: Re-arrange ordering of overlay icons
Custom Archive Path	Enhancement: Increased ability to bulk edit items with wildcard support
Camera Model Administration - Advanced PTZ Controls	Enhancement: Ability to define advanced custom PTZ controls within the administration of camera models
Camera Security Authentication	Enhancement: Support "show password" checkbox in camera administrative dialog, controlled via group permissions.
Custom Archive Path	Enhancement: Simplify configuration of Archive Path
Camera Dock	Enhancement: Allow for Camera Dock to persist between sessions
Full Screen Monitoring	Bug-Fix: Corrected loss of top navigation when navigating between modules in full-screen

3.73. Perspective VMS Version 1.1.0 (Minor Release)

Product Feature Name	Sales Description
SIRIT RFID Integration	**Transaction-based event integration with RFID readers and tags from SIRIT.**

Behavior Events	**Behavior-based event transactions and alerts. Most often used for Video Analytic alarms.**
Authorized Pass-through Authentication	**Ability to generate an authenticated pass-through login credential to access Perspective VMS from 3rd party software or resources without requiring an additional login.**
Camera Setup	Enhancement: Add the ability to capture installation information such as serial number, installation photography, installation date, etc.
Image Snapshot	Enhancement: Add Email button to Image Snapshot
Motion Alerts	Enhancement: Add drop-down list selection for sensitivity
Neighboring Cameras Administration	Enhancement: Add Delete function to administration of Neighboring cameras
Informational Camera Header	Enhancement: Add ability to remove by user
User Profile	Enhancement: Add ability to set custom camera default layouts
PTZ Control	Bug-fix: Adjust fluidity of PTZ Joystick
Multi-level Mapping	Bug-fix: Order maps in tree alphanumerically
Administration Module	Bug-fix: Re-order administration configuration containers

3.74. Perspective VMS Version 1.0.1 (Maintenance Release)

Product Feature Name	Sales Description
Installation Wizard	**A step-by-step guided process for installing Perspective VMS (Server) at your site.**
Silverlight 5 Integration	**Integration into Microsoft Silverlight Version 5**
Print-ready views	**Ability to print configuration views**
Simplicity Integration (Intransa)	**Integration with Intransa's Simplicity Line**
Flexibility Integration (Intransa)	**Integration with Intransa's Flexibility Line**
Custom Icons	**Offers users the ability to upload custom icons for use in the map layout design.**
Area of Interest - Motion Detection	**Provides the user the ability to define the area of interest for motion detection.**
Audible Alert Notification	**User-defined audible alert action upon event notification.**
Neighboring Cameras	Enhancement: Modification to move the icon to the camera container
Camera Setup	Enhancement: Ordering of camera lists by camera number
Camera Setup	Enhancement: Allow model list sorting
User Account Administration	Enhancement: Reorder and re-categorize settings
Map Layout Designer	Enhancement: Allow for search on map items
Informational Camera Header	Enhancement: Move of camera status icons

User Settings	Enhancement: Allow for setting of "Extended Tool Tips"
PTZ Control	Bug Fix: Corrected PTZ overly refresh rate
Custom Maps	Bug Fix: Corrected hang on uploading a custom map in Chrome

3.75. Perspective VMS Version 1.0.0 (Major Release)

Product Feature Name	Sales Description
Camera Dock (Component)	Allows the user to drag and drop cameras from one or more maps into one common area (the Camera Dock) for viewing.
User-defined Schedules	A schedule interface tool allowing for customizing times to record, archive, search for motion or other items.
Video Extract Player	Ability to play extracted video within Perspective VMS and download for external playback
Fast-Find (Component)	Ability to quickly search a camera field of view for motion events in a user-defined area by drawing a box and setting a sensitivity threshold.
Custom Multi-view Sequence Editor	Provides the ability to create user-defined multi-view sequences. The sequences can rotate on a schedule for automated display of unlimited camera arrangements.
Informational Camera Header	A header overlay with relevant information and real-time status about the camera.
Dynamic Camera View Selector	Allows user to select and switch camera view arrangements through the utilization of a dialogue window consisting of thumbnail icons, devices, lists, or map views.
Image Snapshot	Provides the ability to ta ke and download a snapshot image from any one or multiple camera view(s).
System-based Alerts	Diagnostic alerts on system actions of a camera or service
Motion detection based events	Ability to archive on motion via a server-based motion analytic for cameras using the M-JPEG codec.
Authorized User Logon	User generated password protected login for secure and audit-able access to the platform.
Display Active User Sessions	Provides status of all users actively logged into Perspective VMS
Tagging	Ability to mark/flag video, cameras, or events for fast search and quantifiable look-up
Private and Public Extracts	Provides the ability to annotate whether an extract can be viewed by other system users or to be maintained as a private event by the owner and administrator.
Custom Maps	Provides the ability to upload custom generated map files of facilities, grounds, or regions.

Multi-View Monitoring	Ability for custom defined multiple live streaming camera view arrangements with several pre-defined templates for easy and fast viewing configurations.
Browser interoperability and General GUI	Provides the ability to run as a Rich Internet Application, smart-client, in HTML5 compliant browsers, included Microsoft Edge, Mozilla Firefox, Google Chrome and Apple Safari browsers.
Multi-Floor Navigation	Provides the ability to navigate to floors in a building or site location.
Software License	A software license key allows each site to be configured properly towards the scope of work. The license will determine the instance edition (Standard or Enterprise) as well as enable purchased add-on modules.
PTZ Control Sphere (Component)	Provides a unique interactive interface tool allowing the user to navigate the field of view of the PTZ camera using a sphere graph.
Archive Timeline Control (Component)	Dynamic timeline control for fast searching and visual historical search navigation
Map Integration	Ability to add custom or pre-defined map images into Perspective and add dynamic camera icons providing accurate situational awareness for a facility or site.
Multi-view Presets	Ability to save a selected camera configuration and view as a preset for quick retrieval.
PTZ Sequence Editor (Tour)	Ability to configure PTZ presets into a tour configuration
PTZ Presets	Ability to control PTZ cameras and set preset stopping coordinates.
Virtual Pan/Zoom	Ability to digitally pan and zoom on any image from any camera view, providing more analysis of an area of interest.
Streaming Archive Player	Ability to playback archived video.
Motion-JPEG Recording	Ability to record and archive video in Motion-JPEG format
H.264 Recording	Ability to record and archive in H.264 format.
Share View	A collaboration tool providing the ability to dynamically share any view the user is currently seeing with any other user.
Send Message	Allows users to send messages within the application
Active Directory (Read)	Active Directory Integration
Maps Module (Module)	An interface providing an at-a-glance geographic overview of the site or entire enterprise with the ability to interact with cameras and devices for relative field-of-view. Ideal for real-time situational awareness and to build visual familiarity of the...
Camera Viewer Module (Module)	The Camera Viewer module provides live video viewing, enabling you to monitor one or more live Views, create Sequences of Multi-Views, quickly initiate on-demand recording, manipulate Pan-Tilt-Zoom ("PTZ") cameras, and quickly review recently archived vi...

Real-time Extraction (Component)	Ability to live record and extract video with or without motion or external trigger by a simple one-click interface on any camera view.
Welcome and Login (Module)	Welcome area with navigation to components and modules within Perspective VMS
Visual Camera Status Indication	A visual alert within the events panel, annotating the camera status for quick reference.
Send Messages	Ability to send and receive messages between users.
Downloadable Extracts	Ability to download and view extracts in a standard video player
Extraction List/View	A customized and filter-ready list view of extracts made.
Tutorial Videos	Interactive tutorial videos showing brief functional instructions to common operating interfaces.
SQL Server 2008 R2 Integration	Provides the ability to operate and run using Microsoft SQL Server 2008 R2.
Silverlight 4 Integration	Perspective VMS operates and runs in a Microsoft Silverlight environment
Archive Module (Module)	Allows users to quickly locate and playback archived video, provides functionality for timeline based archive retrieval, event and archive integration, downloading and sharing archived video and tagging archived information.
Out-of-browser	Provides the ability to run as a desktop client without the need of any browser.
Multi-Level Mapping	Provides the ability to navigate multiple maps through an intuitive interface with dynamic pan-tilt and zoom on each graphic.
Multi-Streaming Archive Player	Ability to playback multiple archived video streams simultaneously.
Neighboring Cameras	Provides the ability to associate cameras together in custom multi-view arrangement of a logical group for quick display of "neighbor" cameras or devices.
Custom Map Layers	Ability to add definable layers to any map. These layers can be hidden or exposed depending on user configuration and preference.

4. Full Product Feature List

A full product feature list can be found online at (Features List Link)

PerspectiveVMS