**ANDROID CLIENT**:

 - If a camera archive contained too many recorded fragments, live video would occasionally freeze. Fixed.

 - When logging in using a combination of caps and lowercase characters (Admin - admin), the camera list did not appear. Fixed.

 - Panoramic cameras are now supported (1st sensor is displayed).

**iOS Client**:

 - iOS client now works on iOS 5

 - A sorted list of cameras is now displayed

 - The camera name is displayed in the top left corner

 - Panoramic cameras are now supported (1st sensor is displayed)

 - The server status was not displayed properly. Fixed.

**NEW CAMERAS AND RECORDERS SUPPORTED**:

 - Arecont Vision: 3256, 3256PM, 10255AMIR-A, 10255AMIR-AH, 1255AMIR-A, 1255AMIR-AH, 2255AMIR-A, 2255AMIR-H, 2255AMIR-AH, 3255AMIR-H, 3255AMIR-A, 3255AMIR-AH, 5255AMIR-A, 5255AMIR-H, 5255AMIR-AH

 - Avigilon: 2.0-H3-D1-IR, 2.0-H3-DO1-IR, 2.0-H3M-DO1, 2.0W-H3-BO1-IR

 - Axis: AXIS M3005, AXIS M3007, AXIS M7001

 - Vivotek: SD8362E, FD8372, IP8335H, FD8134, IP8362, MD8562, IP8151, IP8133, FD8135H, FE8172V, CC8130, FD8136 (PTZ), FD8361 (PTZ), FD8362E (PTZ), FD8161 (PTZ)

 - Dahua: IPC-HFW3200S

 - ACTi cameras with older firmware versions are now supported (T series < 4.13, K series < 5.08 and A1 series < 6.03). Input/output for ACTi cameras is now supported.

 - Sony: SNCRH124 (Advanced PTZ)

 - Any RTSP stream can now be added as a camera by entering the desired RTSP URL into the manual addition form instead of a camera’s IP.

**NEW FEATURES**:

 - **Events and actions**:

    - Notifications have been completely redesigned and are now located in the right Panel.

    - New actions have been added:

      - "Play sound" – ability to play sound when an event occurs. Sound can either be selected from the library or uploaded by the user.

      - "Text to speech" – ability to speak when an event occurs. Extends the "Play Sound" action.

      - "Instant output". It was not possible in previous versions to connect an output action to instant events (i.e. motion start).

 - **Zoom windows**. An ability to create single or multiple new views from an item by drawing a rectangular over the desired area using the zoom button (the zoom button is located on the actual item).

 - **E-mapping**. An ability to map items on a schematic layout (i.e. building plan).

 - **History of events and actions**. All events and actions are displayed in the table for easy data sorting and filtering. Additionally, "Check server issues" and "Check camera issues” have been added to Media Servers and Cameras Context Menus.

 - **Cameras List** is introduced. It displays all Cameras in the table that provides an ability to sort and filter data.

 - **Video color/gamma correction**. This feature is activated by pressing the correction button on an item. To measure full capacity of this new feature, try darker scenes. Use the context menu to adjust the feature settings. It is also possible to export video while retaining this feature.

 - **Ability to adjust the quality of the second stream in camera settings**. This feature is generally not recommended; yet, may be useful in specific scenarios.

 - **Visual Motion Indication**. Motion is visually indicated.

 - **Email notification on motion includes a video link**. Opens the camera in a browser once clicked.

 - **Locked Layouts** are introduced disallowing any changes to layouts.

 - Compatibility with **Windows Server 2012 Family.**

 - **Translatable** **Tray Tool**. Language settings are applied to both Client and Tray Tool.

 - **Fish-eye cameras** are supported (enabling “fish-eye” in camera settings is required). **De-Warping** filter can now be applied along with PTZ navigation, zoom windows and more onto de-warped pictures.

 - **Offline cameras diagnostics** is implemented. By clicking on Diagnose, the software will report the most probable reason(s) for a particular camera to appear offline and will generate the necessary data for support. This new capability will ease self-diagnostic efforts and assist support in resolving the issue.

 - **Client Only Installer** is now available.

**IMPROVEMENTS**:

 - **Client Startup**:

   - Auto-connection can now be activated on the login page. It will use the pre-established user name and password to connect to the server automatically.

   - An ability to run Client whenever a computer boots up.

   - When Client connects to the system with different versions of server components (i.e EC 1.5.1, MS1 1.5.0 and MS2 1.5.1), a warning message appears.

 - **Client UI Main Controls**:

   - Scene:

     - The algorithm for navigation through items with arrow keys (UP, LEFT, RIGHT, DOWN) is improved

     - The current time appears under the playback buttons.

     - The UI tab settings (pinned or hidden tabs) are automatically saved between Client launches.

     - Whenever resizing video on a scene, the text (i.e. Unauthorized, NO SIGNAL etc.) is scaled accordingly.

   - Tree:

     - If a camera has any technical difficulties (at least 3 network issues during the last minute), it will be marked by an exclamation mark.

     - New Context Menu items: Backup/Restore and Alarm/Event Rules ("System")

     - Thumbnails now appear in Resource Tree when hovering over a camera with a mouse cursor.

- Thumbnails are displayed if hover with a mouse cursor on a camera in the "Select cameras" dialog (when configuring Event Rules or copying Recording Schedule to Cameras)

- A ping button has been added to the Media Server settings dialog. A user may want to check the computer state: if the computer is pinging, but Media Server appears to be offline, then this is a software related problem. Otherwise, it is likely to be a hardware problem and a hard reset may be necessary.

 - **Screen Recording**:

   - Recorded files are now displayed properly in Windows Media Player even if the initial recording was performed in high quality.

   - Recorded files are displayed better if recording "Application Window" instead of fullscreen.

 - **Camera Settings**:

   - Process wise, the software forces cameras to change the primary and secondary stream settings to any desired values (FPS/quality). It is now possible to leave settings pre-configured (i.e. set up specific resolution, FPS and quality for the 1st and 2nd streams on a camera's web page and retain for use in the software. Warning: this is an expert mode feature and may cause the system to work unexpectedly if used incorrectly.

   - Default motion sensitivity for motion dialog has been changed to 5 (used to be 8).

   - The "Open Item" button has been added to Camera Settings form. It will open the current camera in a new tab.

 - **Health monitoring**:

   - Added new buttons to show log and server check issues.

   - Added the ability to enable/disable graphs

- Added the ability to outline a specific graph by hovering over the description with a mouse (while all other graphs appear decolorized).

   - Added network usage in Health Monitoring.

 - **Layout/Multi Videos**:

   - Improved behavior for all local files that are saved on a layout.

   - Local files are not allowed in multi-videos.

 - **Web Client**:

   - Web Client can be opened directly from the tree Context menu (System) and from Main Menu.

   - Panoramic cameras are now supported (1st sensor is displayed).

 - **Licenses**:

   - An Enterprise license type is replaced with Professional.

   - Free licenses have been discontinued and replaced by four trial licenses (30 days).

 - **PTZ**:

   - When opening a PTZ camera in fullscreen and using a mouse wheel to zoom in, it was not possible to zoom out if PTZ controls were active. It can now be done by double-clicking.

 - **Events and Actions**:

   - Notification settings are stored in the database. The login credentials remain the same regardless of the computer used by the same user.

   - The aggregation column has been added to Event and Action (was previously located in advanced E&A settings).

- E-Mail templates are improved

- The filter in the "Event/Actions" dialog is added

 - **Manual Camera Addition**:

   - When trying to add an existing camera manually, the software would previously display "No cameras found". It now displays the cameras that are registered, yet cannot be added again.

 - **Time Line**:

   - The time selector has been added to Calendar.

   - The localized date/time format is now used in Time Line (based on regional settings).

- **Export**:

- If export single camera, then the default filename is "Camera name+start day+start time" (used to be MAC address)

- Added timestamp option to screenshot

- The "Open New Window" button is added to the export dialog with progress bar. It is possible to open a new Client instance and continue working during export.

- All video streams currently opened are paused during export to save bandwidth

- **Installer**:

- Old version of the database can be backed up during the upgrade. In case of failure the database can be restored to a previous version.

**BUGS FIXED**:

 - **Client UI Main Controls**:

   - Tooltips appeared in incorrect locations. Fixed.

   - After logging out and opening a local file in a new window, Client did not connect to EC. Fixed.

   - The recording icon on an item could be resized. Fixed.

   - "NO SIGNAL" among other text appeared on panoramic cameras multiple times. Fixed.

   - When zooming in on an item and then closing the client (ALT + F4), all panels would hide after the restart. Fixed.

   - Client resulted in occasional freezing if the media folder contained too many files (>100,000 files). The limit is now set to 1,000 files.

- Fixed Client crash that occurred if a lot of cameras with a lot of recording fragments are opened simultaneously

 - **Events/Actions**:

   - Auto-reset for camera output did not function correctly for some camera models.

   - When selecting Add and Apply in the Events/Actions dialog, the event rule was occasionally duplicated causing an improper work cycle. Fixed.

    - It was impossible to change notifications from "All Users" to "For Administrators Only" on the Alarm/Event Rules form (only in advanced settings). Fixed.

 - **Recording**:

   - Panic recording was impossible to stop if the recording for all cameras was turned off. Fixed.

   - Fixed all existing issues with inactive external storages (incorrect recording status).

   - The storages mounted as local disks did not appear on the storage list (Linux).

 - **Playback**:

   - Double-clicking to stop touring did not prompt the side panels to reappear. Fixed.

   - CLND could be used for local files when opening it in a new layout after using the calendar search on a camera. Fixed.

   - ACTi cameras occasionally displayed grey background. Fixed.

- Arecont Panoramic sensors were mixed up if apply flip. Fixed

 - **Time Line**:

   - Thumbnails are now displayed correctly for panoramic cameras (1st sensor is displayed).

 - **Export**:

   - Audio was not exported properly in AC3 format while trying to export Multi-Video. Fixed.

 - **Installer**:

   - When a user uninstalled Enterprise Controller on Windows, its ports still remained busy. Thus if re-install it, the ports were new. Fixed.

   - When changing installed components and removing EC, the application did not suggest deleting DB. Fixed.

 - **Camera Addition and Configuration**:

   - The following occasional error was displayed for manual camera addition: "This server version supports searching by IP address only". Fixed.

   - Camera's web page could not be opened if its http-port differed from 80. Fixed.

   - Any changes to camera’s IP address did not automatically reflect on the camera settings form (only in Tree) unless the form was re-opened. Fixed.

   - If a camera was discovered automatically and was not accessible by multicast, then the camera would not work after the Media Server restart. Fixed.

   - Occasionally the same camera with same IP address could be added twice via automatic discovery or manual addition. Fixed.

   - Removed the occasional "FPS value is too high" warning that occurred when opening camera settings.

 - **Compatibility (old versions support)**:

   - Whenever connecting to a newer EC version (i.e. 1.4 client to 1.5 EC) while still running the previous app version, a restart was suggested, yet it would still not run. A warning message now appears.

   - If an old version was launched in a compatibility mode, the upgrade notification was invoked. Fixed.

 - **Miscellaneous**:

   - Screen recording crashed on start if the resolution was not a multiple of eight. Fixed.

   - Whenever a user deleted an offline server in a multi-server environment, all the active cameras disappeared and could not be discovered. Now, all active cameras are distributed to other servers.

   - Whenever disconnecting Media Server from EC and reconnecting it back on, the cameras would display NO SIGNAL. Fixed.

   - If Media Server's IP was changed during the all-in-one installation, the server's IP address was not automatically updated in the tree unless it was reconnected to EC again. Fixed.

   - Fixed the incorrect playback slider position that occasionally occurred in the preview search.

   - Web-client. Video didn't play if a camera was moved from one server to another. Fixed.

   - When restoring database from another server, licenses were removed, but recording continued until the restart of Media Server. Fixed.