

## Release Version v3.11.0 (2020/07/30)

### Fixed Bug

1. Server may hang when client logins or commits changes.
2. Alarm video may fail to popup on matrix when connecting to Mini/Solo.
3. Playback alarm video may fail when connecting to Mini/Solo.
4. Number of re-alarms was incorrect when re-alarm interval was set as 0.
5. Cannot playback failover video in "Manual video backup".
6. Out-of-memory when using Metadata Search dialog.
7. Incorrectly showing camera's record diagram when access privilege was not granted.
8. Client application may hang when double clicking matrix panel to change grid.
9. Client application may crash when drag PTZ camera onto matrix panel.
10. Talking to camera function was not working.
11. Sorting EMap was failed.

### Enhance

1. Interconnect Crystal: support I/O devices, export video, metadata search and playback.
2. Support A-10 IO-Box.
3. Support up to 128 compound events.
4. Reduce memory usage in metadata search in "Manual video backup".

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit
8. Windows 10 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 7000S)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v3.7.0+ v3.6.0 (2019/05/23)

### Fixed Bug

1. Use simple /traditional Chinese language download alarm pdf will display garbled.
2. Font overlap causes display exception.
3. The first metadata cannot be displayed on the screen.
4. CMS client log viewer shows garbled characters.
5. Alarm audio extend time setting is abnormal.
6. SQL disconnection problem.
7. Remote Playback date/ time list display issue.
8. Remote playback next and previous day direction is wrong.
9. Remote playback permission issue.
10. Users who are not in the management group can see the Crystal series from Remote Playback.
11. NCS Client Matrix lost config.

### Enhance

1. Remote Playback from CMS client exec support edit server list.
2. The matrix can choose the source of the time zone.
3. CMS watermark issues and improved decoding performance.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit
8. Windows 10 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 7000S)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v3.5.0 (2019/01/03)

### Fixed Bug

1. Fix bug: Fail to login when first time login to Matrix
2. Fix bug: Matrix drop frame issue
3. Fix bug: NCS client crash when playback and export video
4. Fix bug: PTZ doesn't work in Matrix
5. Fix bug: Matrix config missing when NCS client reconnect
6. Fix bug: NCS client crash when generate event report

### Support OS

12. Windows XP 32 bit
13. Windows Vista 32 bit
14. Windows 7 32 bit and 64 bit
15. Server 2008 R2 (64 bit)
16. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
17. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
18. Windows 8.1 32 bit and 64 bit
19. Windows 10 32 bit and 64 bit

### Support NUUO product line

6. Mainconsole: 6.1.1 or later (DVR card only support 7000S)
7. NVRmini2: 1.6.1 or later
8. NVRsolo: 1.0 or later
9. Crystal: 3.1.0 or later
10. Titan NVR: 1.7.0 or later.

## Release Version v3.4.0 (2018/10/08)

### New Feature

1. Support IO Box Disconnect event.
2. Support Date & Time OSD on Matrix.
3. Support blinking bubble.
4. Support GPU acceleration for generic fisheye dewarp on Matrix.
5. Support Interconnect Crystal IVS event.

### Fixed Bug

7. Fix vulnerabilities - SQL injection
8. Fix vulnerabilities - file path
9. Fix vulnerabilities - path manipulation through protocol between NCS server and client.
10. Fix bug - the icon of connected status became that of preset indicator on camera summary page.

### Support OS

20. Windows XP 32 bit
21. Windows Vista 32 bit
22. Windows 7 32 bit and 64 bit
23. Server 2008 R2 (64 bit)
24. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
25. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
26. Windows 8.1 32 bit and 64 bit
27. Windows 10 32 bit and 64 bit

### Support NUUO product line

11. Mainconsole: 6.1.1 or later (DVR card only support 7000S)
12. NVRmini2: 1.6.1 or later
13. NVRsolo: 1.0 or later
14. Crystal: 3.1.0 or later
15. Titan NVR: 1.7.0 or later.

## Release Version v3.3.0 (2018/08/06)

### Enhancement

1. Make remote desktop port be editable just like other ports.

### Fixed Bug

1. NCS client instant playback fisheye PTZ issue.
2. When multiple Matrix processes ran on the same computer, one of them might crash when the writing log file was occupied by another Matrix.
3. "Fail to retrieve license" occurred when there were too many devices.
4. Default stream profile of analog cameras was record 1.
5. CMS server hangs UI when server tried to update device status to the CMS client.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit
8. Windows 10 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 7000S)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v3.2.0 (2018/07/05)

### Fixed Bug

1. Camera live view showed 'camera not exist' after upgraded the CMS server from v2.8 to v3.1.
2. Playback / Instant Playback crash issue.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit
8. Windows 10 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v3.1.0 (2018/06/22)

### New Feature

1. PTZ Preset Point Indicator
2. Interconnect Crystal Patrol
3. Interconnect Crystal Digital PTZ

### Fixed Bug

1. Custom Remote Playback issue when connecting to Crystal.
2. Vulnerabilities

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit
8. Windows 10 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v3.0.0 (2018/04/12)

### New Feature

1. Support H.265 format
2. Support continuous focus near/far

### Fixed Bug

1. Fix Matrix get streaming issue
2. Fix Playback timeout crash issue
3. Fix NCS Client login crash issue

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit
8. Windows 10 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.



## Release Version v2.11.0 (2017/11/24)

### Fixed Bug

Fix Interconnect crystal issues

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit
8. Windows 10 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.10.0 (2017/9/26)

### New Feature

- Support SQL 2014
- Support Win10
- Support Nuface
- Support MC alarm Compound Event & Lost Record Detection

### Fixed Bug

- Fix Generic Dewarp Perimeter mode PTZ location will not be saved

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit
8. Windows 10 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.9.0 (2017/5/31)

### New Feature

Exporting excel file Including alarm description, assigner, alarm type and alarm note.

### Fixed Bug

Fix two different live streams displayed on the same viewport.

Fix when Matrix 1 uses the grid tour, joystick for the Matrix 2 of the same computer can't be used.

Fix export alarm failed if the description contains.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Not officially support SQL 2005 by Microsoft)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/7100/8000HD)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.8.0 (2017/2/15)

### New Feature

Update CHS translation

### Fixed Bug

Fix NCS Client crash when use AD user login.

Fix CMS Matrix crash after upgrade 2.1 to 2.5.

Fix closing the NCS Client will cause the Playback server list to disappear.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2 (Need to disable Windows UAC before starting NCS system)
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/7100/8000HD)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.7.0 (2017/2/2)

### Fixed Bug

Fix System crash when playing video in Remote Playback mode.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/7100/8000HD)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.6.0 (2016/12/28)

### New Feature

Support Crystal CMS alarm record

**Note: Crystal alarm record does not support snapshot and audio.**

### Fixed Bug

Fix Fail to lunch Recent list in NCS Remote playback.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
6. Windows 8.1 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/7100/8000HD)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.5.0 (2016/12/07)

### Fixed Bug

1. Enhance transmission performance between NCS Client and NCS Server
2. Fix Metadata unable to display on live view, playback and matrix

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
6. Windows 8.1 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/7100/8000HD)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.4.0 (2016/10/28)

### Fixed Bug

1. Fix CMS vulnerabilities Session
2. Fix CMS vulnerabilities UAC
3. Fix Instant Playback not show metadata by connecting with Mainconsole v6.8
4. Fix NCS Client Crash when connecting Crystal

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
6. Windows 8.1 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/7100/8000HD)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.



## Release Version v2.3.2 (2016/5/5)

### New Features

1. Able to synchronize multiple recording servers in one time (right click on server group -> Synchronize Device)
2. Able to export CMS alarm as .PDF (version 2.3.1 only support .xls format).

### Enhancement

1. Upgrade H.265 decoder to have better performance.

### Fixed Bug

1. Repack VC Microsoft Visual C++ 2008 SP1 Redistributable Package (x86) ver 6195 to fix fail to run CMS when startup in certain condition.
2. Fix playback select folder function fail.
3. Fix Matrix mark flag that will result in triggering non-related camera channel.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
6. Windows 8.1 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/7100/8000HD)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.3.1 (2016/02/22)

### Fixed Bug

1. To include necessary dll so no need to install Microsoft Visual C++ 2008 SP1 Redistributable Package (x86) additionally.
2. For user in CMS 2.3.0, please upgrade to CMS 2.3.1 for fix.

## Release Version v2.3 (2016/01/18)

### New Features

1. Support NUUO Crystal™ and Titan NVR with Live view, alarm and playback  
\*Refer manual: NCS Overview -> System Introduction -> Support Crystal™ and Titan NVR  
\*For Crystal-PRO, it won't need to upgrade to Crystal-ENT or ULT to support CMS Matrix View
2. Support Mainconsole Edge Motion Event
3. Support MainConsole Failover with Live View and Playback
4. Support H.265

### Enhancement

1. Control Multiple PTZ camera in Single PTZ Control Panel
2. Set a Default Matrix for Live View Navigation
3. Multiple Remote Desktop Login Mainconsole

### Known Issue

1. Cannot apply the stream profile from Crystal / Titan to Mainconsole / NVRmini / NVRSolo, and vice versa.
2. On CMS Matrix, when camera from Crystal lost the connection, it will only show freeze image and do not have disconnect OSD.
3. The stream profile value of Crystal and Titan is incorrect.
4. After adding alarms from Crystal or Titan, please wait around 1~2 minutes, so CMS side can receive alarms correctly
5. Crystal and Titan do not support Set Layout profile.

### Support OS

1. Windows XP 32 bit
2. Windows Vista 32 bit
3. Windows 7 32 bit and 64 bit
4. Server 2008 R2 (64 bit)
5. Server 2012 R2
6. Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
7. Windows 8.1 32 bit and 64 bit

### Support NUUO product line

1. Mainconsole: 6.1.1 or later (DVR card only support 6000S/7000S/7100/8000HD)
2. NVRmini2: 1.6.1 or later
3. NVRsolo: 1.0 or later
4. Crystal: 3.1.0 or later
5. Titan NVR: 1.7.0 or later.

## Release Version v2.1 (2015/4/30)

### New Features

- NCS Client
  - A. Support live video scramble (with Mainconsole v5.2)

### Enhancement

- NCS Client
  - A. Support offline mode
    - a. When server has new configuration update by other user, the user can choose login again to update the configuration or keep as offline mode.
    - b. In offline mode, user will run out-of-date configuration and still can do live view/backup/export.
    - c. In offline model, alarm and server status won't be updated and some options will be disabled and be gray out indicating not available.

### Support OS

- Windows XP 32 bit
- Windows Vista 32 bit
- Windows 7 32 bit and 64 bit
- Server 2008 R2 (64 bit)
- Server 2012 R2
- Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
- Windows 8.1 32 bit and 64 bit

### Support NUUO product line

- Mainconsole: 4.1.0 or later (DVR card only support 6000S/7000/7000S/7100/8000HD)
- NVRmini: 2.6
- NVRmini2: 1.6.1 or later
- NVRsolo: 1.0 or later

## Release Version v2.0 (2014/5/12)

### New Features

- NCS Client
  - A. Support Camera Multi-Stream (with Mainconsole v5.0)
  - B. Central Manual Backup: Support both Alarm & Video central backup
  - C. Support lock screen: Able to lock window in full screen to ensure focus on NCS client
  - D. Add Camera Link: Able to add direct IP address links to each individual camera
  - E. Add Hotkeys to set alarm status for Alarm Real-Time/Output/Output2 and Alarm Management windows

### Enhancement

- NCS Client
  - A. All new Alarm Management interface - Live View & Instant Playback on one screen
  - B. Simplifying NCS Client menu layout
  - C. Support for NVRmini2/NVRsolo 2-way audio
  - D. Support for NVRmini2/NVRsolo snapshot to CMS

### Fixed Bug

- NCS Client
  - A. Only able to “select one” PTZ Camera preset point on NCS Client
  - B. With live view pop-up window, when alarm keeps occurring, the 4<sup>th</sup> pop-up window (most recent alarm) overtakes the 3<sup>rd</sup> pop-up window (2<sup>nd</sup> recent alarm) instead of the oldest alarm. Fixed to overtake the oldest pop-up window

### Known Issue

- NCS Client
  - A. If an Alarm Note is already written in Alarm Management window, and its alarm status is then changed from Real-Time Alarm list using Hotkey functions, the Alarm Note will appear as blank. However you can still find the Alarm Note details with Advance Alarm Search (under Tools)

### Support OS

- Windows XP 32 bit
- Windows Vista 32 bit
- Windows 7 32 bit and 64 bit
- Server 2008 R2 (64 bit)
- Server 2012 R2
- Windows 8 64 bit (Need to disable Windows UAC before starting NCS system)
- Windows 8.1 32 bit and 64 bit

### Support NUUO product line

- Mainconsole: 4.1.0 or later (DVR card only support SCB-6000/6000S/7000/7000S/7100/8000HD)
- NVRmini: 2.6
- NVRmini2: 1.6.1 or later
- NVRsolo: 1.0 or later