

Configuration

All of the settings are under the “Configuration” tab. Initially, this brings up basic information about the NVR.

The screenshot shows the NVR configuration interface with the 'Configuration' tab selected. The left sidebar shows a tree view with 'Local Configuration' expanded. The main content area displays 'Basic Information' with the following fields:

| | |
|------------------------|---------------------------------------|
| Device Name | Embedded Net DVR |
| Device No. | 255 |
| Model | LTN7616-HT |
| Serial No. | LTN7616-HT1620131011BBRR436747636WCVU |
| Firmware Version | V2.3.4 build 140404 |
| Encoding Version | V1.0 build 131115 |
| Number of Channels | 31 |
| Number of HDDs | 1 |
| Number of Alarm Input | 10 |
| Number of Alarm Output | 5 |

All of the settings fall under two categories: Local and Remote. *Local Configuration* controls settings for that specific web browser. *Remote Configuration* controls settings for the NVR itself.

The screenshot shows the NVR configuration interface with the 'Local Configuration' section selected. The left sidebar shows 'Local Configuration' expanded. The main content area displays 'Local Configuration' with the following fields:

| | | |
|---------------------------------|--------------------------------------|--------|
| Protocol | TCP | |
| Stream Type | Sub Stream | |
| Image Size | Auto-fill | |
| Record File Size | 512M | |
| Live View Performance | Balanced | |
| Auto Start Live View | No | |
| Resume Live View Status | No | |
| Highlight Event Area | Disable | |
| Save record files to | C:\Users\ryan.lang\Web\RecordFiles | Browse |
| Save snapshots in live view to | C:\Users\ryan.lang\Web\CaptureFiles | Browse |
| Save snapshots when playback to | C:\Users\ryan.lang\Web\PlaybackPics | Browse |
| Save clips to | C:\Users\ryan.lang\Web\PlaybackFiles | Browse |
| Save downloaded files to | C:\Users\ryan.lang\Web\DownloadFiles | Browse |

Save

File Download Location

Click on: “Local Configuration”
Then click on [Browse] to change the save locations.

| | | |
|---------------------------------|--------------------------------------|--------|
| Save record files to | C:\Users\ryan.lang\Web\RecordFiles | Browse |
| Save snapshots in live view to | C:\Users\ryan.lang\Web\CaptureFiles | Browse |
| Save snapshots when playback to | C:\Users\ryan.lang\Web\PlaybackPics | Browse |
| Save clips to | C:\Users\ryan.lang\Web\PlaybackFiles | Browse |
| Save downloaded files to | C:\Users\ryan.lang\Web\DownloadFiles | Browse |

Video Stream Quality

Click on: “Local Configuration”

| | |
|-------------------------|------------|
| Protocol | TCP |
| Stream Type | Sub Stream |
| Image Size | Auto-fill |
| Record File Size | 512M |
| Live View Performance | Balanced |
| Auto Start Live View | No |
| Resume Live View Status | No |

The default quality for “Live View Performance” is “Balanced”. Changing it to “Shortest Delay” will reduce dropped frames by reducing color depth and bandwidth. It can be very effective and helpful.

The screenshot shows the 'Live View Performance' dropdown menu with the following options:

- Balanced
- Shortest Delay
- Real Time
- Balanced
- Fluency

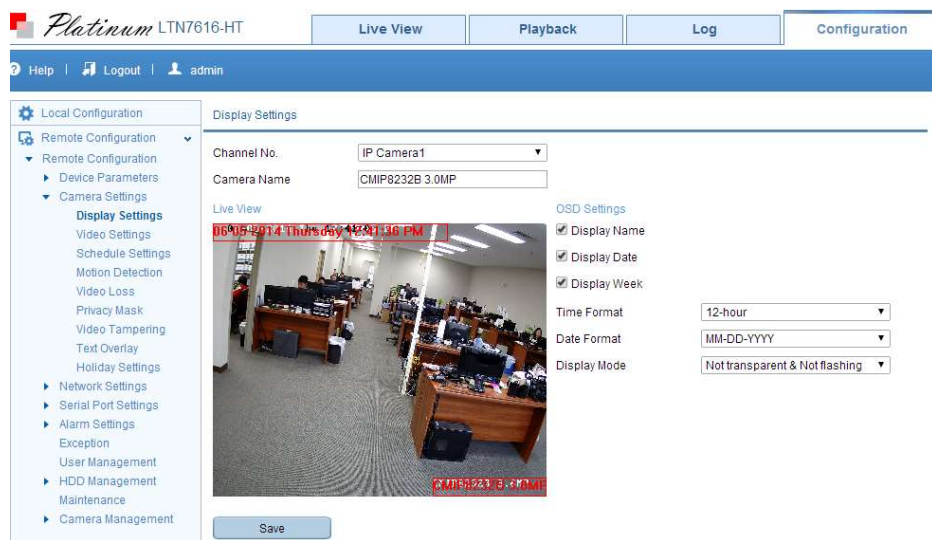
The default “Stream Type” is “Sub Stream”. It should only be changed to “Main Stream” if the computer is on the local network. It uses much more bandwidth.

The “Protocol” is “TCP” by default. Changing it to “UDP” can have a slight performance increase on a stable network, but only if both UDP and TCP ports have been forwarded. It often is unnoticeable.

The “Auto Start Live View” makes the cameras load without clicking the “Start All Live View” button. The “Resume Live View Status” only restores the number of cameras shown (1x1, 2x2, 3x3, or 4x4).

Camera Names

Configuration > Camera Setup > Display Settings



Display Settings

Channel No.

Camera Name

Video Quality

Configuration > Camera Settings > Video Settings

Each NVR has a different amount of bandwidth. Typically, the cameras will automatically configure themselves. They can be optimized to conserve HDD space and bandwidth. They can also be optimized for quality, sacrificing space, bandwidth, and possibly channels. Each resolution, frame rate, and quality has a different recommended max bitrate (recommendations are on the NVR itself).

Substream is a low resolution video feed that is not recorded (thus, does not affect HDD space). Because lower resolution can use less bandwidth, substream is used to view multiple cameras feeds at once.

Substream Defaults & Possible Optimization

Video Settings

| | | |
|----------------|---|---|
| Channel No. | <input type="text" value="IP Camera1"/> | <input type="text" value="IP Camera1"/> |
| Stream Type | <input type="text" value="Sub Stream"/> | <input type="text" value="Sub Stream"/> |
| Video Type | <input type="text" value="Video Stream"/> | <input type="text" value="Video Stream"/> |
| Resolution | <input type="text" value="704*480"/> | <input type="text" value="704*480"/> |
| Bitrate Type | <input type="text" value="Variable"/> | <input type="text" value="Variable"/> |
| Video Quality | <input type="text" value="Medium"/> | <input type="text" value="Low"/> |
| Frame Rate | <input type="text" value="Max Frame"/> | <input type="text" value="15"/> |
| Max. Bitrate | <input type="text" value="512"/> Kbps | <input type="text" value="256"/> Kbps |
| Video Encoding | <input type="text" value="H.264"/> | <input type="text" value="H.264"/> |

Video quality is a full topic on its own. For **mainstream**, 4096 Kbps for 2.1 or 3 MP, with medium quality and real-time, is recommended.