NTP Drift and Timeline Mismatch Troubleshooting (exacqVision Server Cameras)

Introduction

Accurate time is critical for search, playback, exports, and multi-camera correlation. This article explains how to troubleshoot NTP drift and timeline mismatch in exacqVision by validating server time, time zone/DST, and camera time sources.

Problem

Users report that video time overlays do not match real time, searches return clips offset by minutes/seconds, or multi-camera playback is misaligned across servers/cameras.

Cause

Timeline mismatch is usually caused by one or more of the following: server OS clock drift, incorrect time zone/DST, inconsistent NTP sources, cameras not syncing to the correct time server, or cameras using their own overlay instead of exacqVision OSD. exacqVision provides a Date/Time configuration tab to set a time server and (optionally) override the time server advertised to cameras.

Solution

Follow the steps below in order. Fix server time first, then camera time, then validate in exacqVision search and playback. For best results, use a single authoritative time source and ensure all servers and cameras reference it consistently.

Step-by-step

1) Verify server OS time, time zone, and DST are correct (Windows/Linux).
2) In exacqVision Client: Config (Setup) → Configure System → Date/Time tab: Enable Time Server and specify a reliable NTP server.

3) Decide the camera time source: (a) cameras sync to the exacqVision server, or (b) use IP Camera Time Server Override to point cameras to another NTP source.
4) Confirm cameras adopted the NTP/time zone settings (check camera web UI for NTP server, time zone, sync interval).
5) Use exacqVision OSD time overlay (recommended) rather than camera-side overlays; camera overlays can appear incorrect if time zone handling differs.
6) Validate: compare live view time, run a short Search around "now", and confirm multi-camera playback alignment.
7) If drift persists check network access to NTP (UDP/123), check for virtual host time-sync conflicts, and verify the NTP service health on the server.

Check	Where	Expected	If not
Server time zone/DST	Server OS + exacqVision Date/Time tab	Local time zone correct; DST correct	Fix OS time zone; then re-check exacqVision Date/Time tab settings.
Time server configured	exacqVision Date/Time tab	Enable Time Server checked; valid NTP server set	Set NTP server; ensure DNS/network reachable.
Camera time source	Camera web UI + exacqVision Date/Time tab	Cameras point to intended NTP source (server or override)	Correct camera NTP config or enable/disable IP Camera Time Server Override.
Overlay consistency	Client live view	OSD overlay matches expected time	Disable camera-side overlays; use exacqVision OSD.

Quick Tip

If cameras are local and all use the same time zone as the server(s) they are connected to, set IP Camera Time Server Override to point cameras to the server IP.

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Server OS checks:
  Windows: w32tm /query /status
  Ubuntu: timedatectl ; chronyc tracking (if chrony)

exacqVision checks:
  Config → Configure System → Date/Time tab
    - Enable Time Server: <ntp server>
    - Time Zone: correct local zone
    - IP Camera Time Server Override (optional)

Network:
  Ensure UDP/123 allowed to NTP server(s)
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