### **Requirements Table**

Below is a decomposition of the “General Requirements” and other key functional questions as listed in the RFI:

| **#** | **Requirement** | **Notes / Comments** |
| --- | --- | --- |
| 1 | Receive video feeds from multiple IP camera types | The system must support “various IP camera types”. [Government Navigator+1](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 2 | Handle simultaneous video feeds from 200+ IP cameras | “200+ IP cameras” indicates scale. [Government Navigator+1](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 3 | Remote administration of camera settings with centralized management dashboard | The system should enable remote settings/management and a centralized dashboard. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 4 | Robust video analytics of live and prerecorded video | Analytics requirement for live and recorded. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 5 | Support of multiple video compression formats | The system must handle various video compression formats. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 6 | Export of full video recordings as well as “snippets” from videos | Export capability both full video and snippets. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 7 | Export video in a variety of video formats | Flexible export format. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 8 | Robust user management | Supports user groupings, roles etc. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 9 | Robust user auditing | Strong audit / logging of user actions. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 10 | Ability to view the geolocation of all IP cameras on a map | Map/geolocation view of camera assets. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |
| 11 | Multiple deployment options (On-Premises, Gov Cloud, SaaS) | Flexibility in deployment architecture. [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com) |

Additional key questions (from Section 3.1 of the RFI) include:

* What export formats are supported? (Q1)
* Can “snippets” be exported separately? (Q2)
* Does exported video require a proprietary player? (Q3)
* Can recorded video be played back from within the system? (Q4)
* What video compression methods can the system handle? (Q5)
* Can the system handle encrypted video feeds? (Q6)
* What types of cameras interface with the system? (Q7)
* How many IP cameras can the system manage? (Q8)
* Can the system record video from drones? (Q9)
* Does the system have the ability to centrally manage camera configuration and settings? (Q10)
* Does the system have a centralized dashboard with camera status & geolocation? (Q11)
* Can the system plot camera location on a map? (Q12)
* How can the system be deployed? (Q13)
* Is the system FedRAMP / TX-RAMP certified? (Q14)
* Does the system have integrated video analytics? (Q15)
* Can video analytics be performed on live and prerecorded videos? (Q16)
* Does the system allow splitting users into groups and restricting access based on groups? (Q17)
* How is the system accessed (web interface, mobile app, computer app)? (Q19)
* What type of audit logging can the system perform? (Q20)
* What type of reports can the system produce? (Q21)
* Does the system hash the recorded videos for evidentiary integrity verification? (Q22)
* Does the system have Active Directory (AD) integration? SAML? (Q23)
* Do you have a DIR (Texas Dept. of Information Resources) contract number? GSA contract number? (Q24/25) [Government Navigator](https://media.governmentnavigator.com/media/bid/1742506162_2025-3-20_CID202503141041.pdf?utm_source=chatgpt.com)

### **Technologies that could be used**

Given these requirements, here is a breakdown of technologies/modules that a vendor or integrator would likely need to satisfy them:

* **Video Management System (VMS) platform**: Core system for ingesting, managing, storing and retrieving video feeds.  
  + On-premises server/cluster or cloud‐based solution (Gov Cloud) or SaaS model.
  + Support for IP cameras from multiple vendors (ONVIF compliance, RTSP/RTMP support).
  + Dashboard/interface for administrators.
* **Video analytics engine / Computer Vision module**: Required for “robust video analytics of live and prerecorded video”. Potential capabilities:  
  + Motion detection, object detection/classification (people, vehicles, drones), anomaly detection.
  + Face recognition (if legally allowed), license plate recognition (LPR/ANPR), crowd detection, loitering detection.
  + Live vs recorded video analytics pipelines.
  + Possibly GPU-accelerated or cloud AI/ML services.
* **Encoding / compression / export module**:  
  + Support of multiple video codecs (H.264, H.265, MJPEG, MPEG-4, etc.).
  + Export to various formats (MP4, AVI, MOV, proprietary formats). Snippet generation (clip extraction).
  + Possibly handle encrypted video streams, hashing/evidentiary integrity.
* **User management & auditing subsystem**:  
  + Role-based access control (RBAC), group permissions.
  + Integration with Active Directory / SAML for single sign-on.
  + Audit logging of users’ actions (viewing, export, deletion).
  + Reports generating module for usage, video access, system health.
* **Camera mapping/geolocation component**:  
  + GIS or map integration (e.g., ESRI, Google Maps API) to display camera locations.
  + Dashboard showing camera status, feed health, geolocation visualization.
* **Deployment infrastructure**:  
  + On-premises: server hardware, storage (NAS/SAN), network (10Gb etc.).
  + Cloud: Gov Cloud provider (Azure Government, AWS GovCloud) or TX-RAMP certified.
  + SaaS: Multi-tenant or dedicated instance for TXDPS.
  + Security & compliance: CJIS, FedRAMP, TX-RAMP, encryption at rest/in transit, hashing for evidentiary integrity.
  + Disaster recovery, high availability (24/7/365 operation implied via context).
* **Integration/interfaces**:  
  + Camera manufacturers/vendors, drone feed ingestion (mentioned).
  + External systems for archiving, external media, court-presentation systems.
  + Reporting tools, export interfaces (web UI, mobile client).

### **Staffing Matrix**

Here is a suggested staffing matrix for deploying a system that meets the above. The matrix estimates roles, responsibilities, approximate headcount and typical phases (Procurement → Implementation → Operations & Maintenance). These numbers are illustrative and should be adjusted for scale (200+ cameras, etc.).

| **Role** | **Phase** | **Typical # of Staff** | **Key Responsibilities** |
| --- | --- | --- | --- |
| Program Manager | All phases | 1 | Oversees project, liaises with TXDPS leadership, ensures compliance with RFI/RFP stipulations. |
| Technical Architect | Procurement/Implementation | 1 | Designs the overall system architecture (VMS + analytics + deployment model). |
| Solution Engineer / Systems Integrator | Implementation | 2–3 | Configure VMS, integrate cameras, analytics engine, map/geolocation, export modules. |
| AI/Computer Vision Engineer | Implementation | 1–2 | Implement, customize, tune video analytics models (live & recorded). |
| Security/Compliance Specialist | Procurement & Implementation | 1 | Ensure CJIS, FedRAMP, TX-RAMP compliance, encryption, evidentiary integrity. |
| Network/Infrastructure Engineer | Implementation | 1–2 | Design network, storage, cloud/on-prem, high availability. |
| QA/Test Engineer | Implementation | 1 | Test functionalities: live feeds, analytics, export, playback, UI, map, etc. |
| Training Lead | Implementation | 1 | Develop training materials for end-users and administrators; deliver training. |
| Operations / Maintenance Staff | Operations phase | 2–3 | Monitor system health, manage cameras, user accounts, respond to incidents. |
| Analytics/Data Scientist (ongoing) | Operations & Enhancement | 1 | Monitor analytics performance, false positives, update models, refine. |

**Total approximate headcount**: ~11–15 people in active phases.  
 **Ongoing operations staff**: 3–4 FTE for daily operations + 1 for analytics refinement.