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IREA
Unified Communications Platform

Unified Communications

Introducing the Unified Communications Platform

Streamlining Surgical Video Management and Collaboration

Modern operating rooms generate a large amount of visual content due to the increasing use of images and video-guided surgery. This data serves various purposes, including enriching patient records, facilitating medical education, enabling peer review and best practice sharing. But without the right tools, managing and sharing this content can quickly become overwhelming for hospitals, ultimately affecting productivity and efficiency.

The Unified Communications Platform offers a seamless way to access and organise this valuable data. Designed for healthcare teams, it brings powerful yet user-friendly media management tools that support better collaboration, smoother workflows, and improved patient care.

Common Challenges in Surgical Video Management:

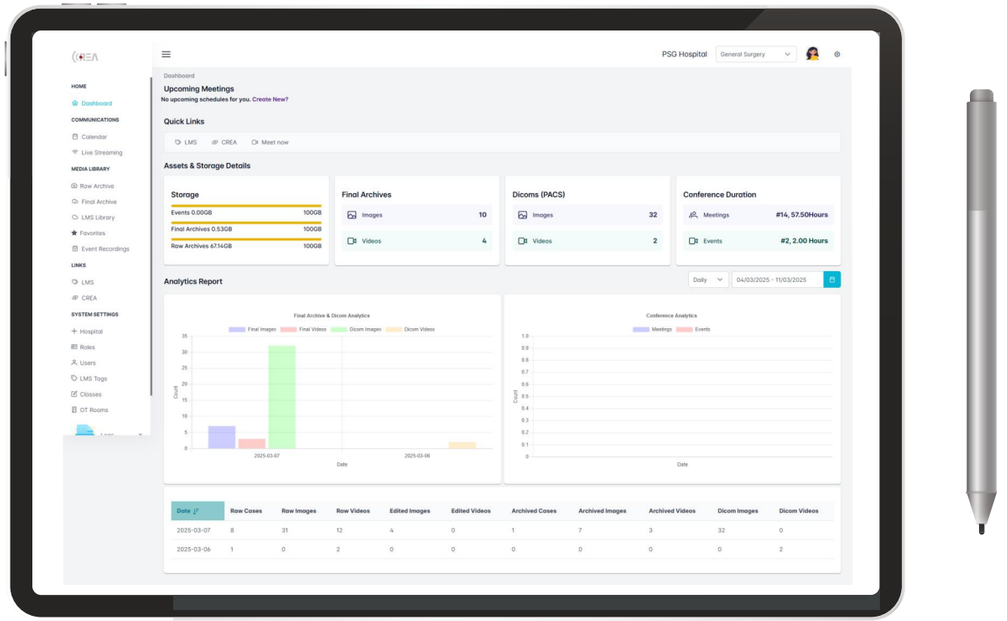
Data Silos:
Surgical videos are often captured using various devices such as endoscopes, robotic systems, and MRI machines, each with its own storage formats and potential connectivity limitations.

Heavy File Sizes:
High-definition recordings can take up significant space requiring significant storage capacity.

PACS Limitations:
Traditional PACS systems may not support the storage of large video files.

Scattered & Insecure Storage:
Without a centralised solution, videos often end up on USB drives or local devices, making them harder to retrieve and more prone to data loss.

Sharing Difficulties:
Sharing videos for medical education and peer collaboration becomes cumbersome with scattered storage and incompatible formats.

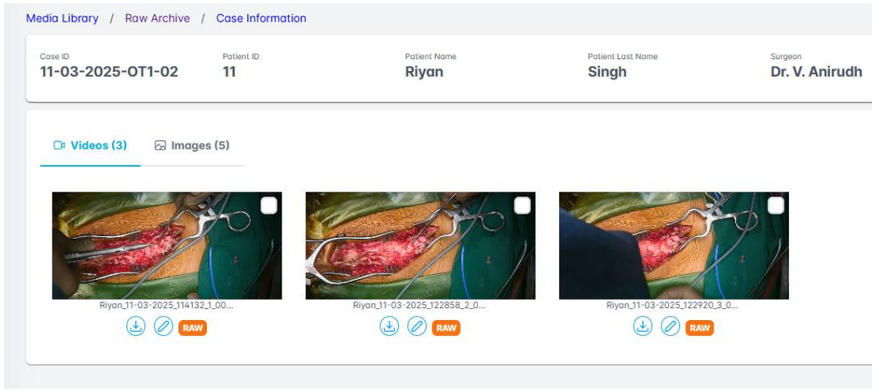


Key Features

- **Anywhere, Anytime Access:** Experience a seamless, web-based application accessible from any location, both inside and outside the hospital.
- **Personalised User Experience:** Enjoy a tailored platform with unified access to media, communications, and tools specific to your role.
- **Modular Design:** Can be customised based on your department's priorities and requirements.
- **Vendor Neutrality:** Integrate seamlessly with any recording system, offering unparalleled compatibility.
- **Flexible Deployment:** Choose between on-premise or on-cloud deployment options to suit your infrastructure and data policies.

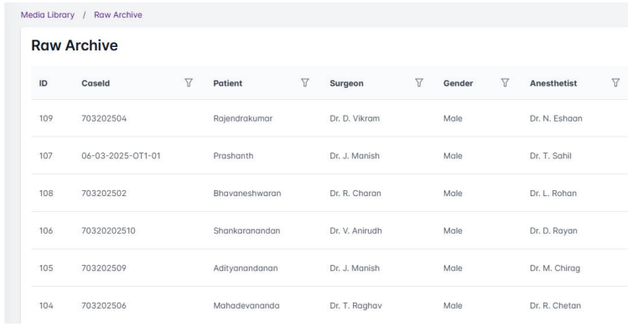
Media Library

Managing visual data shouldn't slow you down — it should support and strengthen patient care in the healthcare ecosystem. The Media Library in this platform makes capturing, organising, and accessing surgical images and videos easier and more efficient than ever.
The platform's flexible APIs enable media acquisition from any *device, streamlining the process and ensuring data integrity.



Why it Works Better:

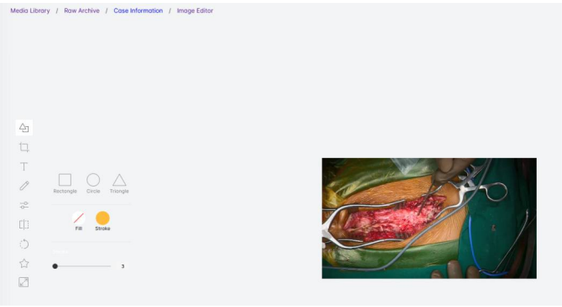
- **Contextualised capture:** Linking media directly to patient records eliminates manual data entry and reduces errors, ensuring accurate documentation
- **Complete Visual Records:** Easily gather all relevant media to build a more holistic view of the patient's condition and treatment.
- **Time-Saving Workflow Integration:** Capture media without disrupting your existing processes or slowing down your team.
- **Data integrity:** Ensure every file is stored securely and accurately for future reference and analysis.



Edit, Archive & Retrieve

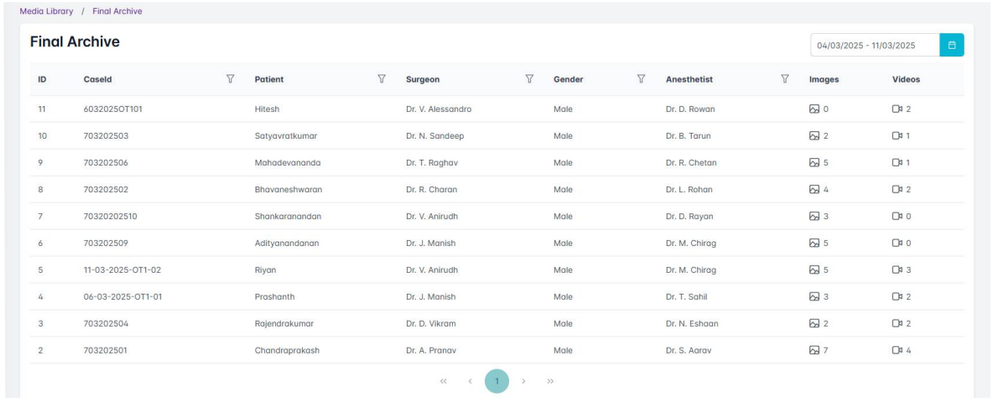
The Unified Communications Platform offers a reliable and secure way to store, manage, and retrieve patient media — all while staying aligned with your organisation's data retention policies and regulatory standards.

Built with long-term value in mind, the platform makes it easy to organise and preserve data for future use — whether for clinical reference, training, research, or tracking patient progress.



What Sets It Apart:

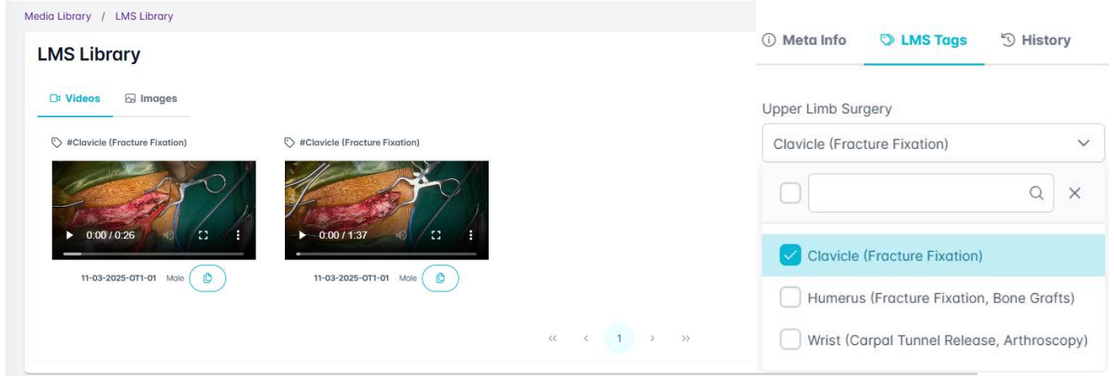
- **Easy Media Preparation:** Healthcare professionals can add notes and annotations, adjust formats, and optimise file sizes to ensure all content is usable and archive-ready.
- **Organised, Compliant Storage:** Keep media safely stored with structured filing that supports both policy compliance and easy navigation.
- **Quick, Intelligent Search:** Locate archived videos or images in seconds with user-friendly search tools, accessible from any device.



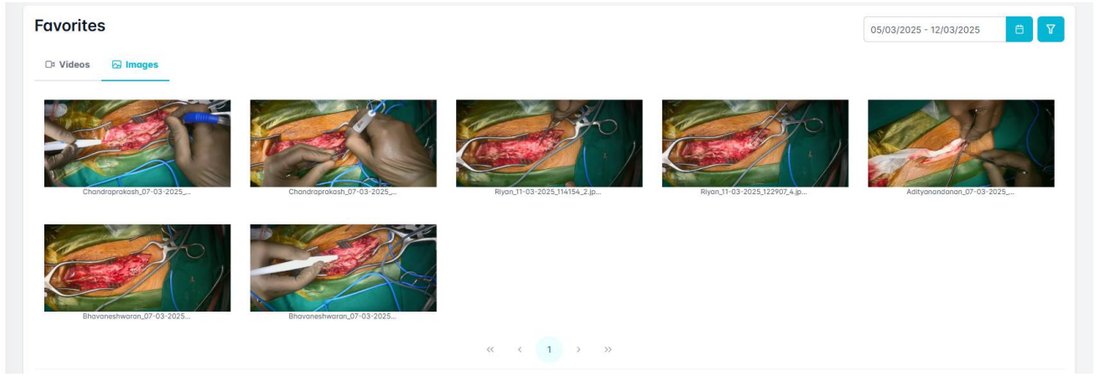
Educational Resource:

Leverage your media library to support medical education, research studies, and training in advanced technologies.

Tag images and videos for quick discovery



Add important media to favourites for quick reference



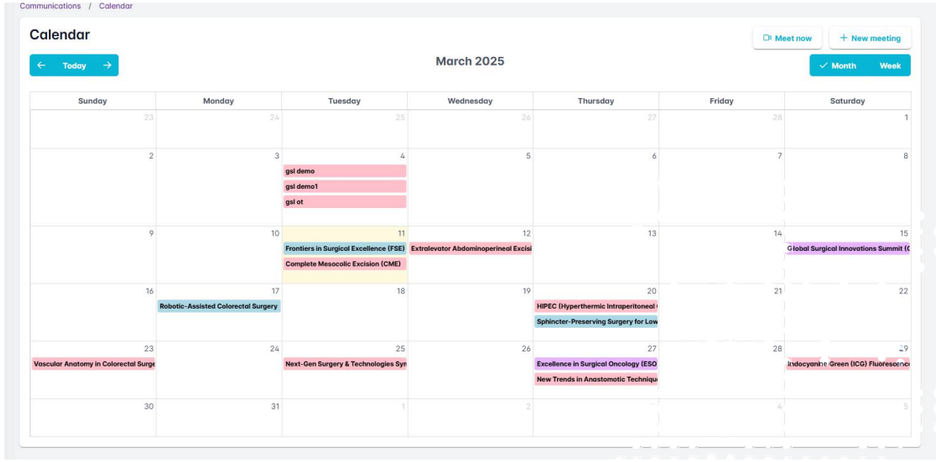
Collaboration Made Simple

How we improve healthcare communication

- **Real-time consultations:** Connect with colleagues instantly for quick consultations or second opinions, regardless of location. Use live video annotations to review, discuss, and explain in real time.
- **Multidisciplinary discussions:** Facilitate discussions among specialists from various disciplines to coordinate patient care and treatment plans effectively.
- **Efficient knowledge sharing:** Share live surgical procedures, lectures, or presentations with students or peers, enhancing medical education and training.
- **Remote expert consultation:** Tap into expert insights from anywhere in the world through video conferencing, gaining specialised knowledge.
- **Live 4K Streaming (Optional):** Stream high-quality 4K video from multiple Operating Rooms to a branded microsite. The platform also includes tools to manage events, handle registrations, and host live Q&A sessions with participants through a simple chat interface

By removing communication barriers and enabling real-time interaction, the platform helps teams work smarter — driving better outcomes for hospitals and patients.

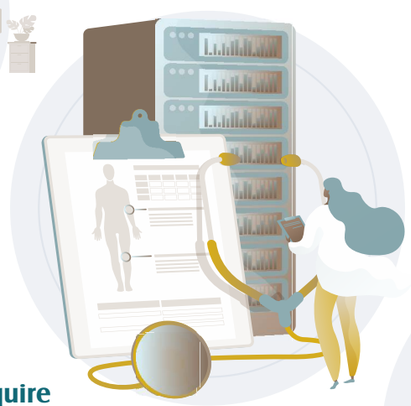
Create and manage events via the Calendar



Integration

The United Communication Platform streamlines data exchange, reduces data silos, and eliminates the need for costly system replacements, enhancing the overall operational efficiency across your organization.

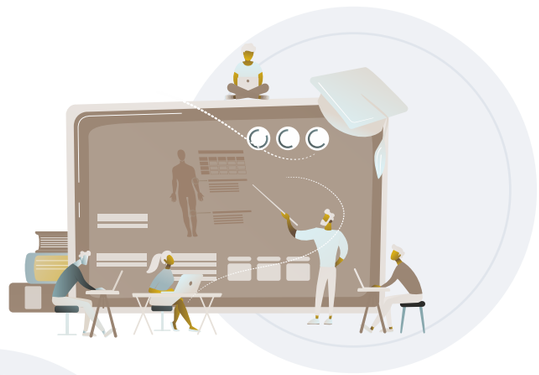
Acquire



Enrich

Archive

Access



Collaborate

Bringing Clarity and Control to Surgical Media

Bring structure to complexity, ensure clinical content is always within reach and support better decision making across care teams. Every second counts, every detail matters.

Contact us today to learn more.
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Data Sheet

CREA Unified Communication Platform

An enterprise level software platform to manage, acquire, edit, archive, tag, annotate, retrieve, share and collaborate on media files generated intra-operatively on any video or image sources such as endoscopes, surgical robots, microscopes, C-Arms, surgical light cameras, room cameras etc.

Technical Specification

		Unified Communications Platform
1	Supported Media format	Videos (MP4, MOV, AVI, MKV) Images (JPEG, PNG, JPG, GIF)
2	Supported resolutions	Media files: Standard definition, Full HD, Ultra HD 4K Live Streaming: Multi-bitrate streaming upto 4K (for Events) via AWS CDN (HIPAA compliant)
3	Hosting environment	On premise server or virtual machine On cloud
4	Supported devices	Windows, Mac, Linux, iOS, Android, Smart TVs, Web browsers
5	Media Ingestion methods	API-based upload, Drag-and-drop, FTP/SFTP, Cloud storage integration (AWS S3 for Video Conference)
6	System Requirements	Processor: Intel Xeon / AMD EPYC (min. 4 cores) Memory: 32GB RAM Storage: SSD (min. 500GB, recommended 1TB for media-heavy usage) Supported OS: Windows Server
7	Security	In-built Encryption & Security: AES-256 encryption for data storage TLS 1.2 / 1.3 for secure data transmission Role-based access control (RBAC)
8	Video Conferencing (Optional)	Annotation Feature: Bi-directional Real-time drawing on live camera feed. Annotation includes text, free form, icons and shapes Internet Access: Required Resolution: 720p, 1080p (adaptive based on bandwidth) Max No. of Participants: Up to 300 participants per meeting (scalable via cloud-based MCU) Storage Requirements: Storage Type: S3 Cloud.
9	IP / Domain Requirements	Static IP recommended for self-hosting; domain configuration for white-label deployments
10	Supported protocols & Port Configuration	WebRTC: UDP 3478-3481, TCP 443 RTMP Streaming: TCP 1935 SIP Integration: TCP/UDP 5060-5061 Signaling: WebSockets on TCP 443 Streaming Protocols: RTMP, WebRTC, HLS, DASH
11	Special Technical Requirements for 4K Streaming (when opted)	Hardware Acceleration: Required (GPU-enabled servers recommended) Codec: H.265 (HEVC) or AV1 for efficiency Edge Streaming: CDN integration recommended
12	Additional Technical Considerations	Integration APIs: RESTful API
13	DICOM SoW (optional)	Mp4 DICOM wrapping using JPG 2000 Lossless compression JPG to DICOM format DICOM Tag Population using HL7 ADT / JSON Storage commit support for DICOM storage into PACS
14	HL7 SoW (optional)	OT Worklist (HL7 ORM or End of Day Surgery Schedule ingestion via Hl7 messages or other structured format) Surgery Summarisation (HL7 ORU via JSON)

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Designed and Developed by

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