

ReFramer PRO

Dual Channel IP Video Transcoder

Compresses any IP or USB camera output to below 10kbps data-rate & send quality images over any IP Link

DUAL CAMERA SUPPORT

Compatible with industry standard digital video cameras. Simply choose the camera, or cameras, that meet your requirements.

DATA & STORAGE SAVING

ReFramer PRO allows the user to massively compress the IP video data saving money in both airtime and storage costs without compromising the mission.

SOFTWARE DEFINED

The ReFramer PRO is a Software Defined solution and can be implemented on a range of hardware solutions from ultra-miniature 'matchbox' to COTs computing products.

LOW RUNNING COST

The ReFramer PRO does not require a Cloud hosted server or any monthly expenses beyond any 4/5G data costs or Sat comms costs.

UXV Applications

The ReFramer PRO allows one video feed to be simultaneously encoded to two different bitrates and qualities.



ReFramer provides the ability to transcode the high quality, High Definition output of up to two connected cameras to fit into a mobile data cellular link.

ReFramer can compress a combined 30Mbps of high quality video into less than 10kbps of output video data.

Video compression is performed in a manner that allows the user to select and optimize the key characteristics of the compressed streams enabling them to optimize the video information they require.

Video streams and high quality still images are distributed from the ReFramer using standard IP video streaming formats and standard digital image file formats. Streams play directly into standard web-browsers and VMS products. No cloud hosted servers or monthly fees are required.

- Minimise data transmission and Storage capacity requirements
- Support for standards' compliant H.264 & HEVC IP Cameras & UVC1.5 USB cameras
- Transcode video into High Quality ultra-low bitrate video IP streams
- Capture high-quality images of the 'moments that matter'
- Web Interface including live video
- IP Output is secure network 'data diode' compatible

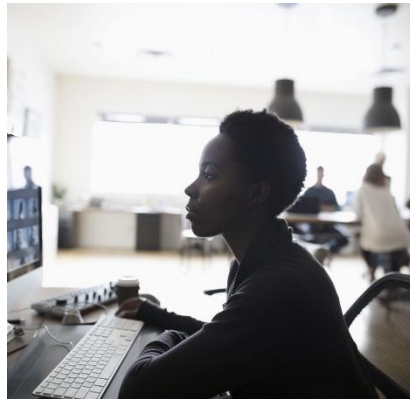
The ReFramer product has been optimized for low power consumption. This enables the software to be deployed on an ultra-miniature bespoke hardware platform. This platform enables simultaneous video transcoding of two independent camera feeds into two independent IP output streams.

ReFramer PRO offers three physical IP Ethernet interfaces, two USB interfaces and optional Dual Band Wi-Fi. The ReFramer PRO also offers dual NIC capability enabling the product to bridge a 'dirty side' network to a 'clean side' network.

The product includes the ability to trigger on movement events within predefined areas of interest within the video frame capturing high resolution stills.

ReFramer PRO

Integration and Interoperability



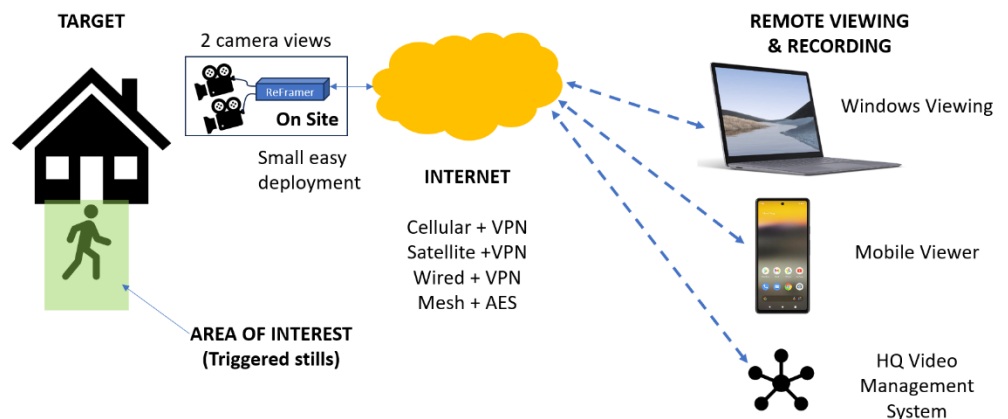
Integration with third-party systems and solutions is simplified via the ReFramer's use of industry standard Video streaming codecs – an optimized **standards compliant H.264 encoder or HEVC encoder** is used for the output video streams - and the use of standard 'rtsp' and 'udp' video streaming protocols.

The use of standards' compliant IP video streams and industry standard still imagery files enables **easy integration into Video Management Solutions (VMS) products** and databases.

ReFramer PRO supports web-browser configuration, control and monitoring. **Live video viewing is available through the standard web-browser interface enabling video viewing on Chrome™ and Safari™ browsers on Apple™ and Android™ products.**

Additionally the web interface enables the viewing of triggered events. Status reporting is via JSON messaging and can be integrated into third-party management systems. The ReFramer PRO does not require a Cloud hosted server or any monthly expenses beyond any 4/5G data costs or Sat comms costs.

Application



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SIZE, WEIGHT & POWER

ReFramer has been ported to run on leading edge low-power miniature System-On-Module solutions.

INTERFACES

ReFramer PRO offers 3 Ethernet, 2 USB (1 USB-A & 1 Micro USB), WIFI and DC Power In and Loop through connectivity

ZERO DOWNTIME

ReFramer has been engineered to recover from all external failures to cameras and power input – auto-recovering whenever inputs and power return to normal operation.

INTEGRATED SOLUTIONS

Standards compliant streams and standard protocols are supported to enable easy integration into third-party systems and solutions.

For more information on any of our products or services, please visit us on the Web at:

www.radicallyunwired.com

ReFramer PRO

Specifications

Video Input Streams

IP Video Input streaming formats accepted:

- RTSP/UDP/HTTP

Video encoding formats accepted

- MJPEG
- H.264
- HEVC

USB Video Inputs:

- USB Video Class (UVC) V1.5
- Supports H.264 and MJPEG streams

Number of IP Video Inputs:

- 2 Simultaneous IP streams can be transcoded

Resolutions Supported

- Up to 1080p30 resolution

Output Streams

Number of simultaneous IP Video Out Streams

- 1 or 2-off independent IP Video Streams

IP Video Output streaming formats include:

- RTSP/UDP/HTTP/SRT
- WebRTC (direct to web browser H.264 only)

Video encoding Supported

- MJPEG
- H.264
- HEVC

Resolutions Supported

- Up to 1080p30 resolution (using in-built H.264 or HEVC hardware acceleration mode)

Output Bitrates

- From 5kbps to 5Mbps (resolution, framerate and use of hardware accelerator dependent)

Network Connectivity:

ReFramer PRO offers:

- 3 x Ethernet 100Base-T
- 2-off Ethernet NICs
- 1 x USB type A
- 1 x Micro USB
- Wi-Fi (Dual Band 802.11 a/b/g/n/ac)

Dimensions, Weight and Temperature:

ReFramer PRO	97mm x 79mm x 20mm
ReFramer PRO	160g in enclosure
ReFramer PRO	-20°C to +45°C

Input Voltage and Power consumption:

ReFramer PRO	12V nom (7V to 17V)
ReFramer PRO	Typical 3.5 to 4.5W

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ReFramer PRO

Licenced Features

Software Enabled Licences:

- HEVC/ H.265 Encoding and Decoding
- WIFI Functionality
- OpenVPN Client functionality
- Object Classification
- DTC Compatible IP Stream Encryption / Decryption

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