ReFramer ACE

Dual Channel IP Video Transcoder

*Compresses any **IP or USB** camera output to below*

25kbps 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 Cube 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 ACE 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 ACE does not require a Cloud hosted server or any monthly expenses beyond any 4/5G data costs or Sat comms costs.

- **Minimise data transmission and Storage capacity requirements**
- **Support for standards' compliant H.264 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**

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 25kbps 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.

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.

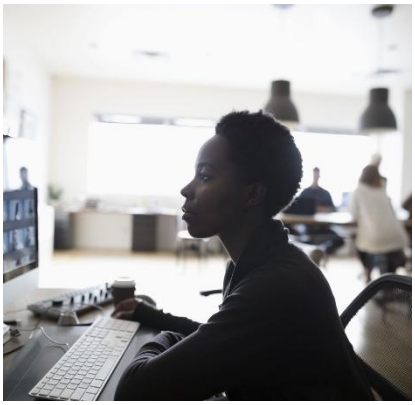
ReFramer software solutions can be ported to suitable Commercial Off The Shelf (COTS) Linux computing platforms. This provides flexibility to increase the compute power, if more simultaneous transcoded streams are required.

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

Radically Unwired

ReFramer ACE

Integration and Interoperability

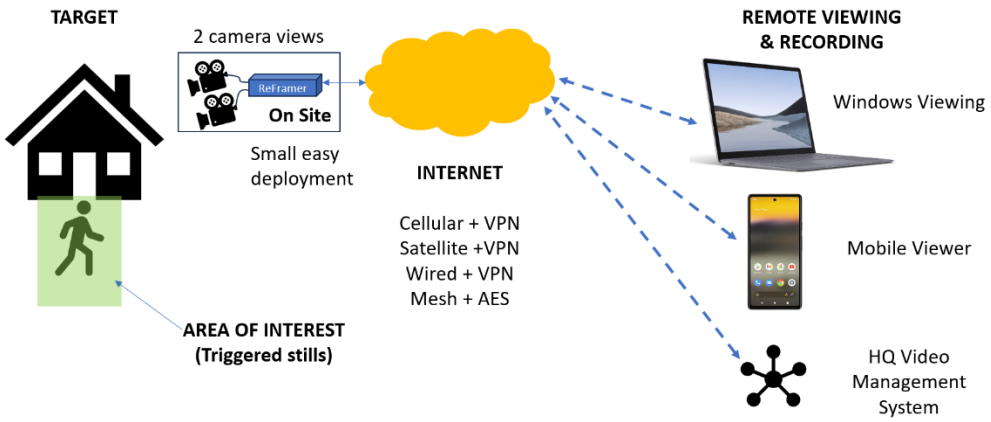


Integration with third-party systems and solutions is simplified via the ReFramer's use of industry standard Video streaming codecs – an optimized **standards compliant H.264 encoder** is used for the output video streams - and the use of standard 'rtsp' and 'udp' video streaming protocols.

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

Application



SIZE, WEIGHT & POWER

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

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

Radically Unwired
Company Ltd
Registered Office: 20
Goodwood Way,
Chippenham, SN14 0SY

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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
- H.264
- HEVC
- JPEG (Captured Stills)

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

Dimensions, Weight and Temperature:

ReFramer ACE	50mm x 50mm x 50mm
ReFramer ACE	200g in enclosure
ReFramer ACE	0°C to +38°C

Input Voltage and Power consumption:

ReFramer ACE	12V nom
ReFramer ACE	Typical 3.5 to 4.5W

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Licenced Features

Software Enabled Licences:

- HEVC/ H.265 Encoding and Decoding
- WIFI Functionality
- OpenVPN Client functionality
- Object Classification

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