

DATA OPTIMISATION.

Secure, encrypted and optimised video and data transfer enabled by the proprietary customised Harvest Infinity protocol for remote locations worldwide.

With the development of proprietary software algorithms, Harvest Infinity enables the secure encrypted transfer of data; including high-definition video and audio, from offshore or remote locations via satellite at much lower bandwidths than previously possible. This represents a significant technological advancement towards allowing secure high quality, real-time voice, video and data transfers from remote locations.



SD Video/Audio Stream over Satellite



128 kb/s

Harvest Infinity UDP
Subsea / Low Turbidity










512 kb/s

Harvest Infinity UDP
Surface / High ROC



1.1 Mb/s

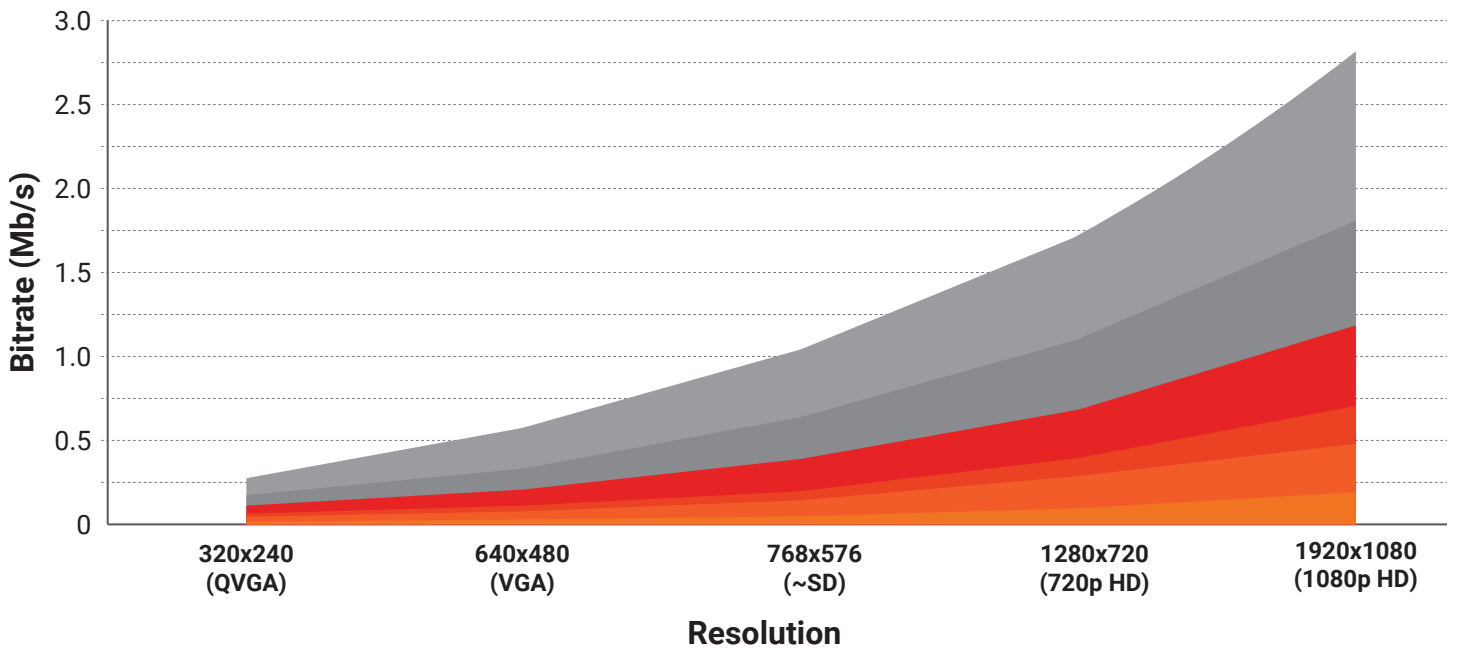
Web Video (e.g. Netflix)
Surface / High ROC

-  Video
-  Audio
-  Data
-  Secure
-  Encrypted
-  Optimised
-  Worldwide by Satellite

Harvest Infinity's proprietary customised User Datagram Protocol (UDP) provides the ability to gain significant data optimisation for video data transfer compared to a standard transport system (e.g. Mpeg-TS). The use of error correction through the encoding and decoding process allows for further gains to be made even across a 'patchy' satellite connection.



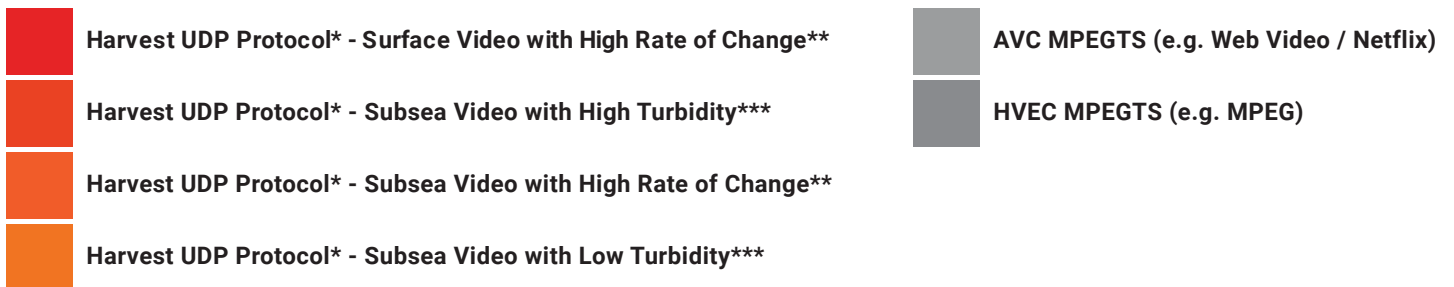
BITRATE COMPARISON. ZERO-ERROR STREAMING.



ZERO LOSS COMPARISON

Assuming a zero-loss system; which is unlikely for most satellite connections, Web Video (e.g. Netflix) for an SD video uses in the order of 1.1 Mb/s for transfer, versus the Harvest Infinity UDP which uses 512 kb/s for the transfer of a surface video with a high rate of change (i.e. movement). For a subsea video with low turbidity (i.e. clear water), this transfer bitrate drops further to 128 kb/s.

Legend



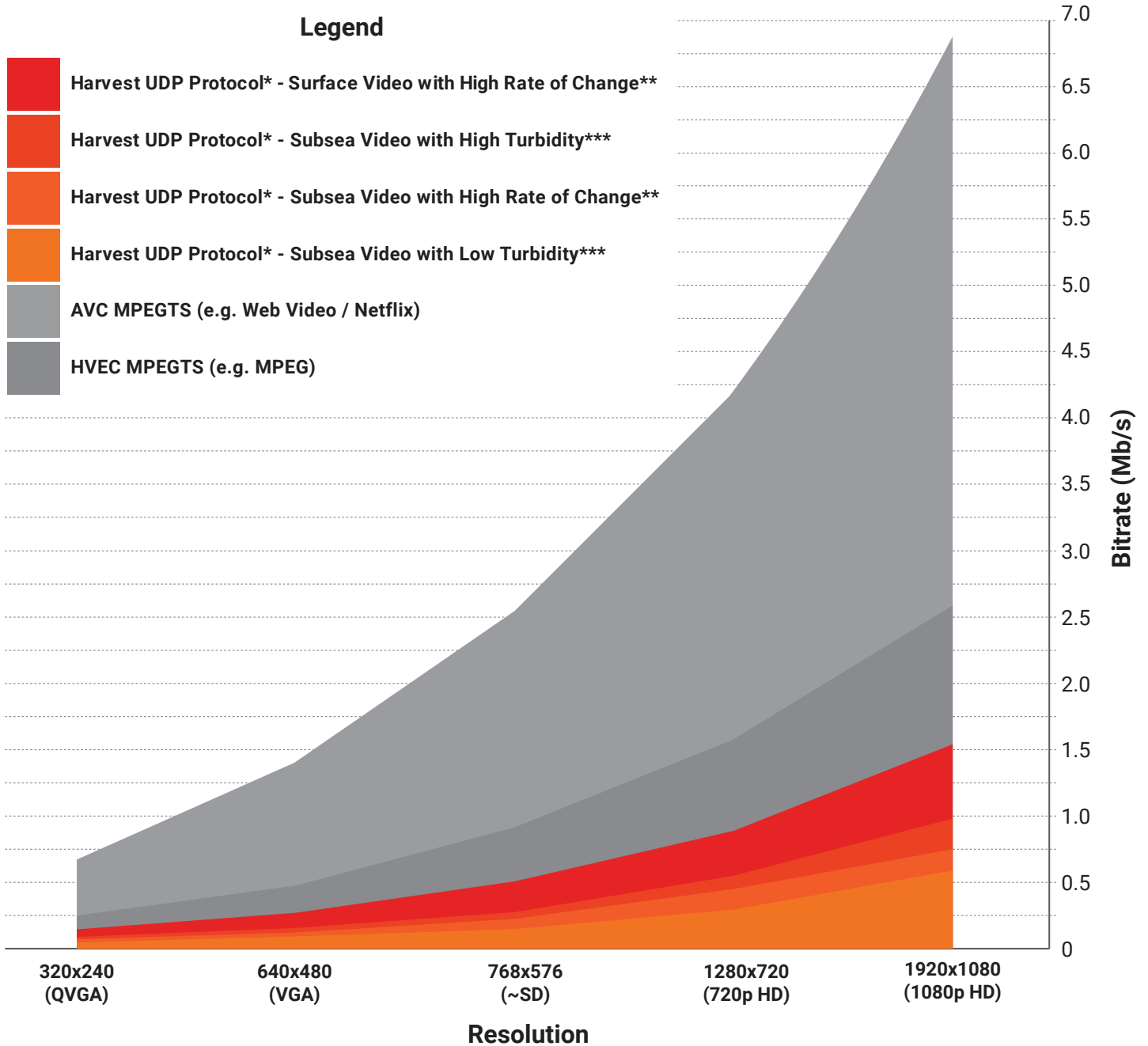
* Harvest Infinity proprietary customised User Datagram Protocol (UDP)

** High Rate of Change relates to a video with normal to high movement

*** Turbidity is a measure of the degree to which the water loses its transparency due to the presence of suspended particulates



EXTREMELY POOR (20% ERROR) CONNECTION.



POOR CONNECTION COMPARISON

Over an extremely poor connection; and ignoring that in most instances a standard transport system for video is unable to deliver, Web Video uses in the order of 2.7 Mb/s compared to 0.6 Mb/s with the Harvest Infinity UDP for an SD video with a high rate of change.

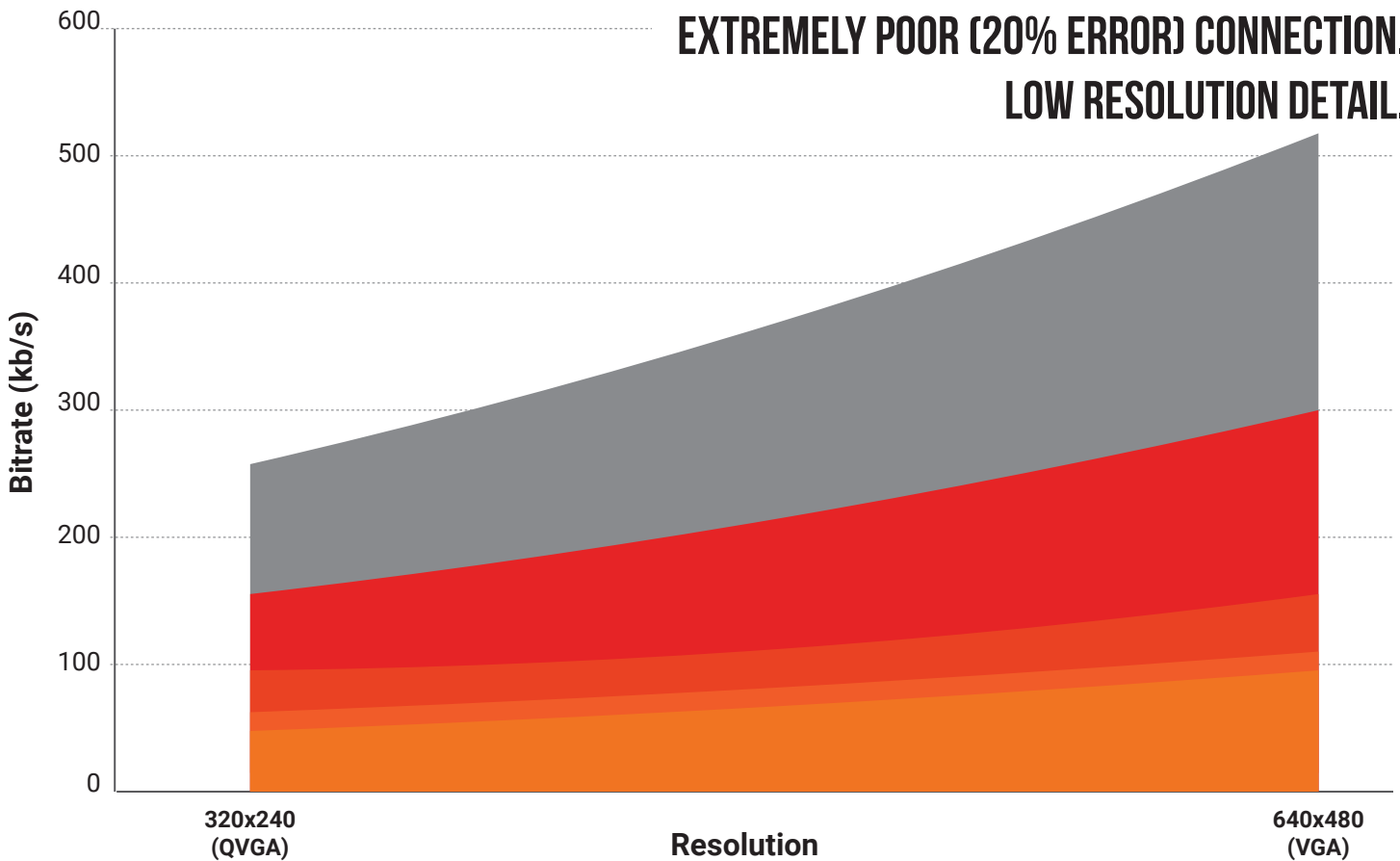
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EXTREME LIMITS AND LATENCY.






**EXTREMELY POOR (20% ERROR) CONNECTION.
LOW RESOLUTION DETAIL.**



EXTREME LIMITS AND LATENCY

At the extreme limit; where bandwidth is either at a cost premium or is not available, a 320 x 240 resolution video (i.e. QVGA) can be transported by the Harvest Infinity UDP with a bandwidth of as low as 48 kb/s for subsea video with low turbidity. Effectively video can be transferred at 'dial-up speed' which presents opportunities for data transfer that until now have not been possible. The Harvest Infinity live video streaming technology allows for video latency to be adjusted to capitalise on available bandwidth and can be adjusted by balancing bandwidth and resolution. The lowest latency can be as low as 50 ms plus the technical limit for satellite connectivity (~600 ms). With respect to data transfer latency is not an issue, and as such bandwidth optimisation can be capitalised.

Legend

	Harvest UDP Protocol* - Surface Video with High Rate of Change**		Harvest UDP Protocol* - Subsea Video with High Rate of Change**
	Harvest UDP Protocol* - Subsea Video with High Turbidity***		Harvest UDP Protocol* - Subsea Video with Low Turbidity***
	HVEC MPEGTS (e.g. MPEG)		

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