

# Video Compression

Version 1.0 | As seen on [Video Compression](#)

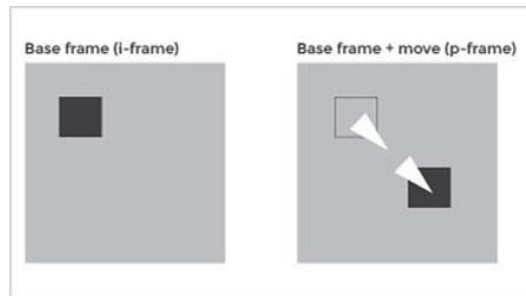
# H.264

H.264 is a video compression standard is widely used for recording, compressing, and distributing video content.



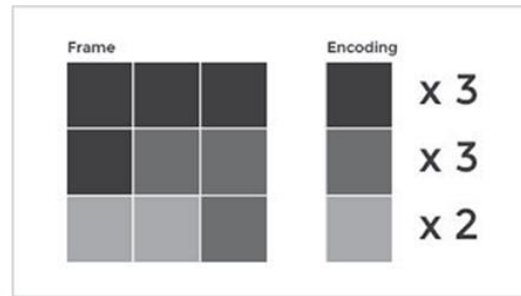
# H.264 provides significant compression by:

## Inter-frame Encoding



Inter-frame motion estimation, to optimize temporal redundancies.

## Intra-frame Encoding



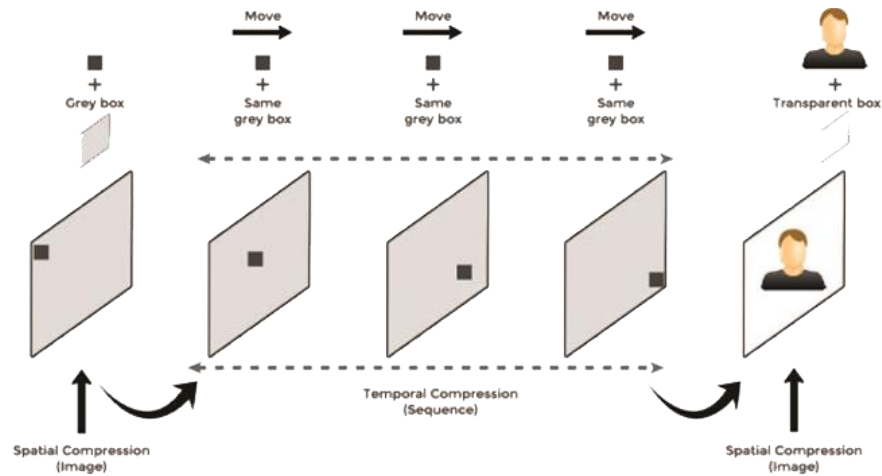
Intra-frame prediction, to optimize spatial redundancies.

## Entropy Encoding

Bit-stream	Encoding
001101 101001 011001	001101 0.08
101001 101001 001101	101001 0.09
011001 011001 001011	011001 0.04
011001 001101 101001	001011 0.02
001101 001101 101001	111000 0.01
001011 001011 011001	.....
101001 001101 001101	.....
101001 101001 001101	.....
011001 011001 001011	.....
001101 011001 001101	.....
001101 001101 101001	.....
001011 001011 011001	.....
	1.00

Entropy encoding, to compress frequently occurring patterns into a smaller number of bits.

# H.264 SVC



SVC (Scalable Video Coding) enables the encoding of a high-quality H.264 bitstream that also contains one or more subset bitstreams, including a “base layer” bitstream that can be decoded by a H.264 decoder that does not support SVC. A subset H.264 bitstream is created by dropping packets from a larger H.264 bitstream to reduce the bandwidth required for the subset bitstream. The subset bitstream can represent a smaller picture, lower frame rate, or lower image quality compared to the bitstream it is derived from.

## H.264 provides significant compression by:

With AnyConnect you can combine temporal, spatial, and quality compression as best suited for your application or device. SVC is an important feature for Internet video applications, which support a wide range of connection qualities, and devices ranging from mobile phones with small screens and low processing power to PCs with high-definition displays and high processing power.

## H.265

H.265 (or known as HEVC – High Efficiency Video Coding) is a video compression standard similar to H.264 but supports block size of up to 64×64 as compared to H.264 which allows maximum block size of 16×16.

This results in significant improvement with better motion compensation and spatial predictions, compression ratio is almost double at the same level of video quality, significant improvement in video quality at the same bitrate as H.264, supports resolutions up to 8192×4320, including 8K UHD.

However, the demand placed on the hardware for signal processing is also significantly higher.



# Get started with AnyConnect.

Ready to get started? Contact us!

Talk to an expert