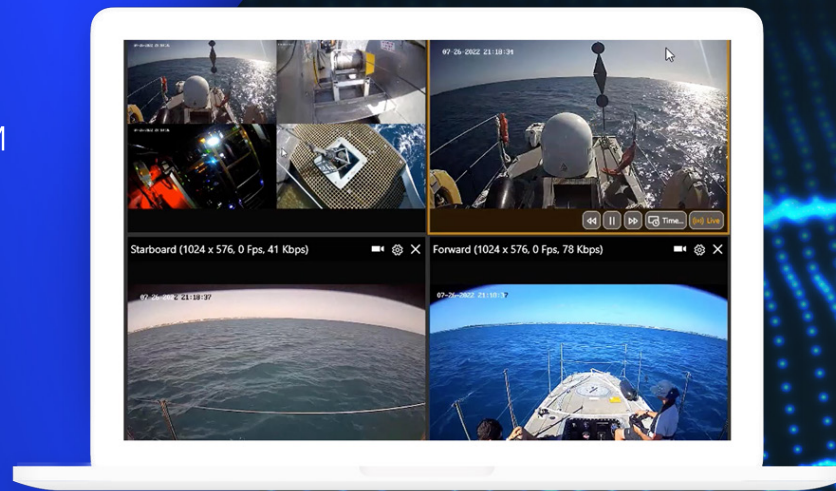


# FireLight™

Ultra-Low Bandwidth  
Video Platform



Our expertise encompasses a diverse range of industries, including SatCom Operations, Maritime, Aviation, Uncrewed vessels, Government, Military, Defence, and Homeland Security.

## Key Features

- ✓ Ultra-Low bandwidth video encoding from 4kbps up to full HD
- ✓ Ultra-low latency glass to glass
- ✓ Multiple streams from a single device
- ✓ Multiple areas of interest from multiple or single cameras
- ✓ Total Recall – Hi-res snapshot and video retrieval even over low bitrate connections
- ✓ FIPS compliant AES128 bit and AES256 encryption
- ✓ High-resolution recording to local media
- ✓ PTZ, Events and AI integration

**Videosoft's Low Bandwidth Video platform** is an easy-to-use system for encoding and transmitting real-time video over wireless networks with bandwidth-managed encoding at ultra-low bitrates (from 4kbps) to full high resolution. Suitable for cellular, mesh and satellite networks.

FireLight™ offers more than just streaming though, with key features to make remote surveillance and monitoring applications a reality even in the harshest environments.

By working closely with industry and customers for many years we have answered a lot of the questions with FireLight™... the next generation of video surveillance solutions.

With specialist knowledge and video processing techniques, and by adapting to network bandwidth conditions, Videosoft's FireLight™ ensures low latency real-time video is delivered reliably across even the harshest network environments. Essential for mission-critical applications or where bandwidth is costly.

## Specifics

The **Edge Gateway software** is the main video and data processing component of the solution and is the powerhouse of the system. All Videosoft hardware gateways come complete with Edge Gateway software, and it can also be sold separately for integration into many other hardware platforms such as Raspberry Pi, embedded computers and third-party equipment such as routers.

You connect **multiple cameras** and other devices to the edge gateway which will then **record Video, audio and data locally in full quality and on demand** (or alarm activated), stream live to the remote user or Video Management System over networks such as 3G/4G/5G, Satellite and Wireless.

Our **two-way communication** protocol means that full functionality can be maintained such as PTZ control and alarm notifications, either within our software or via the client VMS.

The Gateway will **encode the video before transmission using highly optimized and efficient compression** techniques specifically designed for low bandwidth and low latency. From **as little as 4kbps** it will also adapt the video encoding dynamically in response to **network bandwidth conditions** ensure reliable and real-time video delivery.

A unique feature of the gateway is that **multiple streams can be transmitted simultaneously**, each having its own bandwidth level and encoding parameters, which can also be changed dynamically by the user. Each stream can be set to a **selected area of interest** in the main scene to provide more detail from parts of the camera image.



Whole Scene.....>



Single Camera +  
FireBird F-100 Encoder



.....> Areas of Interest

## Total Recall™

The **Total Recall™ feature** allows you to recall hi-res images or videos from the recordings on the gateway if the encoded live stream does not give the detail that you need. For example, reading a license plate, or reading a gauge.

All streams and data from each product can be viewed and managed remotely by **Videosoft apps running**

**on Windows, Android and IOS** or additionally, they can be passed to third-party VMSs for example to be incorporated as part of a wider system.

The system can run in full mode with central server requirements or can be run in point-to-point mode for direct connection to video clients.



## Edge Gateway Capabilities

In addition to video capabilities, the gateway offers extensive compatibility with a wide range of devices.

It's not solely limited to video; there exist abundant opportunities for connectivity and functionality.



Video cameras



Audio Devices



GPS



Remote Control Systems (serial and IP)



IOT Sensors



Alarm inputs



Analytics services

Bespoke interfaces can be added:

Contact us for more information if you have a service type you would like to add.

## Technical Features:

Configuration Interface:	Local Web interface and remote manual and automatic configuration upload
Inputs:	IP Cameras, Analogue Cameras, USB Cameras, Serial and IP I/ Os, Video files, Audio, Analytics, Alarms (IP, Onvif, Serial). See Videosoft hardware products for specific physical interfaces
Output Streams:	Multiple simultaneous video encoded streams Multiple simultaneous data streams (for each input type) Multiple areas of interest for allocating bandwidth to parts of a scene
Video Encoding Features:	High efficiency and performance for low bandwidth applications
Variable Encoding Rates:	4kbps to multi-MBps, varying resolutions and fps, user-definable Videosoft's unique technology – dynamic, automatic encoding adjustments to match available network bandwidths Full native mode (no transcoding) for high rate streaming direct from camera
Recording Features:	Full rate recording of all input types in native formats Local disc - internal or removable Encrypted video files Remote playback and download Total recall™ hi-res image or video retrieval during live viewing or playback
Encryption and Security:	Recorded data encrypted Stream encryption Full SSL certificate management FIPS compliant AES128 bit and AES256 encryption
Viewing Software:	Windows Videosoft Viewer Android / IOS RTSP MJPEG Onvif APIs available All major VMS supported



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