Digital Video Systems
for Marine, Underwater and Offshore applications

DIGITAL VIDEO SYSTEMS

Key Features and Benefits:

- High Definition IP Video Solutions for challenging applications & environments

- Remote Cameras, Data Networks, Displays, Recording & Streaming

- Locate the best cameras wherever you need to look

- Exploit existing cables and infrastructure with latest technologies

- Take control of your assets - Everything, everywhere, continuously

- Record what you see and hear with forensic quality

- Monitor your network - offshore, onboard, underwater, underground and onshore

Network Cameras

We specify, supply, install and commission best in class HD IP Network Cameras that provide ultimate quality and capability to your system. Selected from the AXIS Communications commercial range of cameras, we ensure the best fit for any system. We also manufacture enhanced cameras based on the AXIS technology but with our proprietary data interface to allow operation over existing cables and with reduced conductor requirements.

fNET - IP data over old cables

Fathom have recently developed their *fNET* modem technology. This allows high bandwidth video and audio streams to be sent over twisted pairs, coaxes or even power cables. Multiple cameras can share the same wires and infrastructure. Remote cameras have a *fNET* modem installed and link to a master modem that connects to the 'conventional' network. This gives huge cost and installation savings

Displays & Recording

Our range of digital video cameras connect through the data network to one or more displays - located exactly where you need them. Each display can be stand-alone or on a PC of opportunity. Our viewing and recording software allows full control over cameras and the video & audio streams. Recorded video can be viewed on your PC, streamed locally offshore and sent onshore for display on PCs or mobile devices. There is no limit to the number of displays and recording PCs on the network.
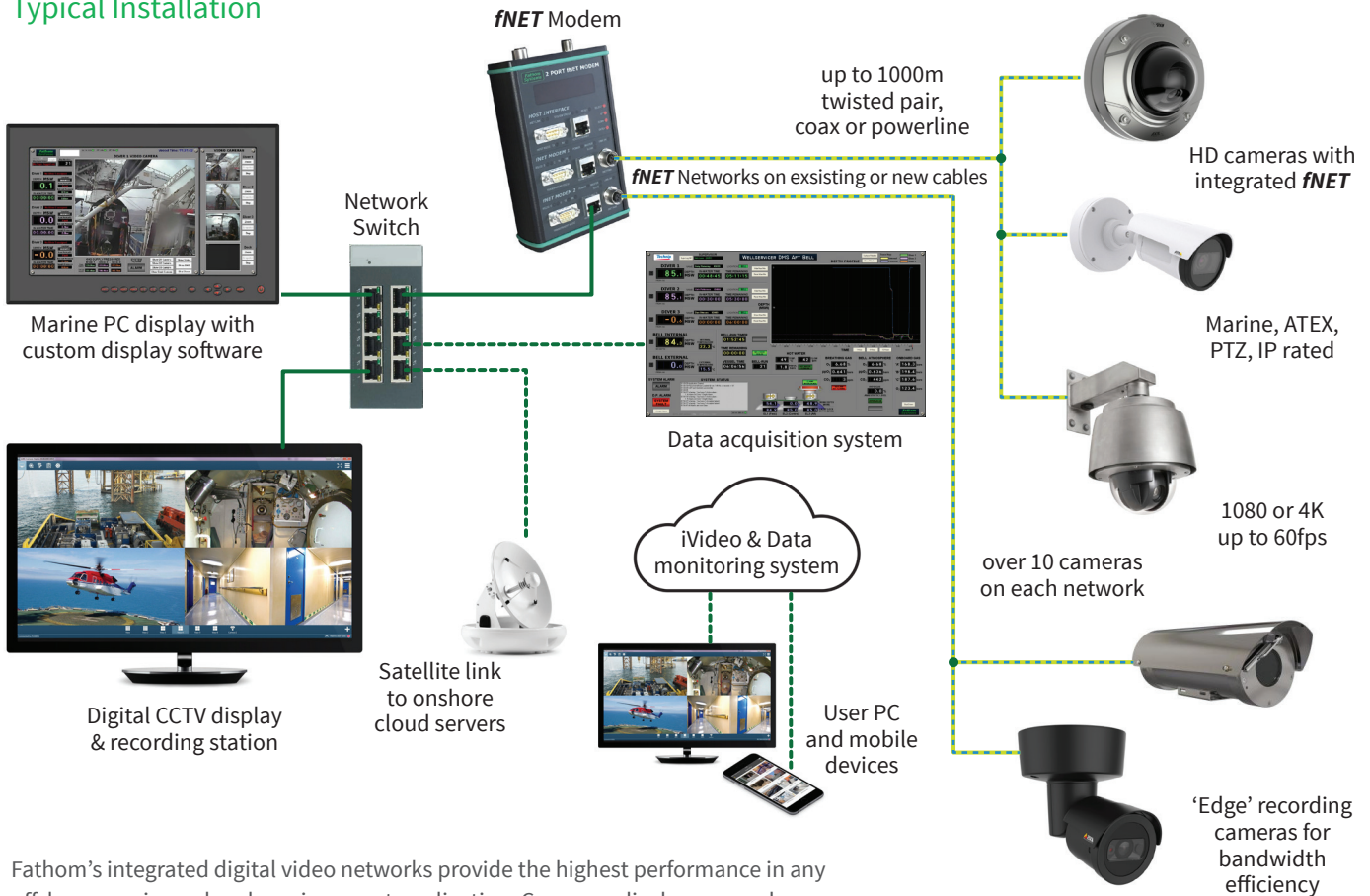
Encoders - link existing cameras

Using the latest single and multi-channel video encoders we can link existing analogue CCTV cameras to the digital network. This gives all the advantages of digital display, recording and streaming without having to replace your cameras. Encoders can link via *fNET* or Ethernet and can record video signals locally for subsequent analysis using Edge Storage.

Typical Installation

fNET Modem

Network Switch

up to 1000m twisted pair, coax or powerline

fNET Networks on exsisting or new cables

HD cameras with integrated *fNET*

Marine PC display with custom display software

Data acquisition system

Marine, ATEX, PTZ, IP rated

1080 or 4K up to 60fps

over 10 cameras on each network

iVideo & Data monitoring system

Digital CCTV display & recording station

Satellite link to onshore cloud servers

User PC and mobile devices

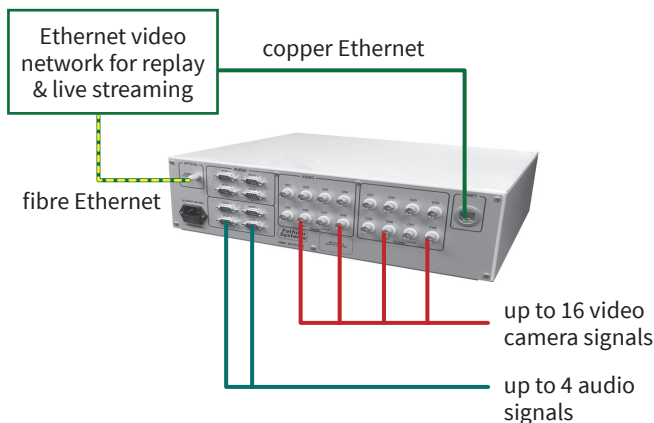'Edge' recording cameras for bandwidth efficiency

Fathom's integrated digital video networks provide the highest performance in any offshore, marine or harsh environment application. Cameras, displays, recorders, data acquisition equipment, network hardware and modems integrate seamlessly to ensure high reliability and uninterrupted coverage.

Black-Box Recording

In some applications it is necessary to record video and audio for compliance and incident management such as diving, ROV, drilling, helideck etc. Currently this is done with stand-alone video recorders that are often unreliable and difficult to manage.

The Fathom digital video encoder Black-Box recorder solves these problems by recording up to 16 video and 4 audio channels from existing analogue video cameras, linking to digital Ethernet video networks for replay, clip storage and live streaming.

Ethernet video network for replay & live streaming

copper Ethernet

fibre Ethernet

up to 16 video camera signals

up to 4 audio signals

Underwater & Hyperbaric Cameras

Fathom manufacture HD underwater video cameras with integrated *fNET* modems to overcome the issues of transmitting HD video over conventional copper cables underwater. Two camera models are available - one for surveillance of ROV, sub-sea tooling, diving bell or diving chambers and the other for mounting on a diving helmet. Cameras are equipped with dimmable LED lighting and integrate seamlessly with other Fathom video networks and software.

Custom Software & Integration

We have a 12 year track-record of providing state of the art software for monitoring and control applications used in mission-critical areas including commercial diving, ROVs and process control.

With the latest generation of digital video systems we can integrate custom software applications to blend control and monitoring functions with live video and audio streams. A dedicated software solution that adds operational value to your process or asset will simplify user interfaces and increase the safety of your system.