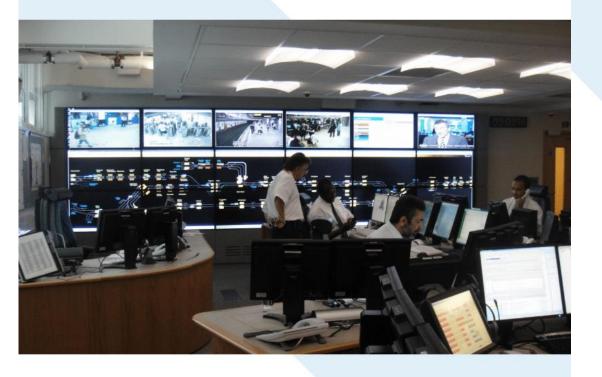


VISUAL COMMUNICATION SOLUTIONS



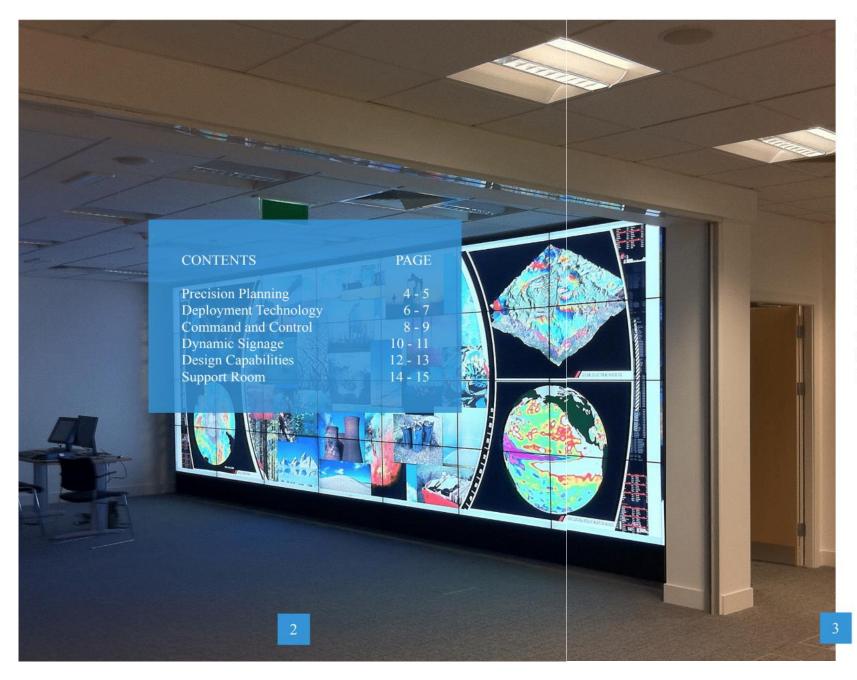
VIDEO WALLS



If you would like Harp Visual Communications Solutions to help you deliver your Video Wall, please call us on 01329 844005 and ask for our new business manager. We look forward to showing you the bigger picture.

Tel: 01329 844005 Fax: 01329 843203 Website: www.harpvisual.com Email: sales@harpvisual.co.uk

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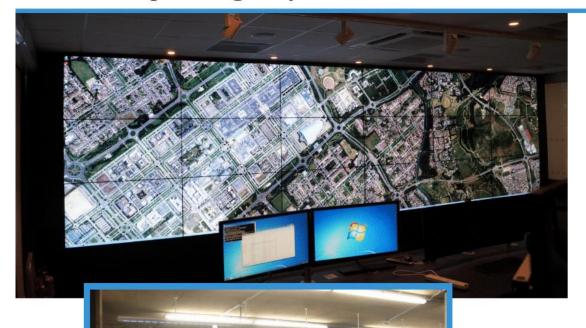


In control room environment, being seen to have complete control is as important as having that control - to keep customer confidence running high, and operations Smooth.

Harp is a UK-based engineering company which has spent years developing both the expertise and supporting products needed to design effective control room and multi-screen solutions. Solutions which integrate with each customer's particular processes, operating systems and people to put them clearly - and: visibly-in control.

Unlike manufacturers who rely on and sell only their own solutions. Harp is able to select the most appropriate systems and tools on the market, and integrate them with its own drive electronics. These proprietary tools allow the working systems to be adapted and tuned to the way you wish to work now, while being open to future changes.

It is this combination of technological expertise and total management ability that has made Harp Visual Communication Solutions one of the largest installers of video walls in the UK.



Objective

Companies use video walls as the main interface to their network and processes, to enable different groups to see the 'bigger picture' of what is happening, and to manage and control (sometimes vast) operations from one central point. Demonstrating a commitment to sophisticated, hi-tech solutions also shows a commitment to providing the best for customers. Harp spends time defining parameters for each new installation to ensure the final solution meets every requirement.

Audience

Operators need access to information as needed, and the ability to deploy decisions. They need to work on faults and incidences locally, while monitoring the overall picture to ensure priorities are correctly assigned.

Managers need to see that their operators are comfortably receiving the information they need, and so maintaining customer confidence in both the ability and competence of the business.

Sales and marketing teams may need access to customer specific information in contrast to the 'overview' information already on display. This can be provided through a 'Viewing Gallery', in which the required information can be monitored and manipulated on a dedicated section of the display wall without impacting the overall operation.

When customers look at a video wall, they are taking a peep at the complexity of the operator's world, and judging accordingly. The display needs to impress by its looks and function - as a sophisticated tool that is helping to meet and manage their needs, reliably and well.

Ergonomics

Room size, lighting concerns, desk layout, Harp project managers harness the specialist skills of partners in interior design, consoles design, lighting deployment and room construction, and act as the customer's central point of contact with responsibility for the room 'happening'.

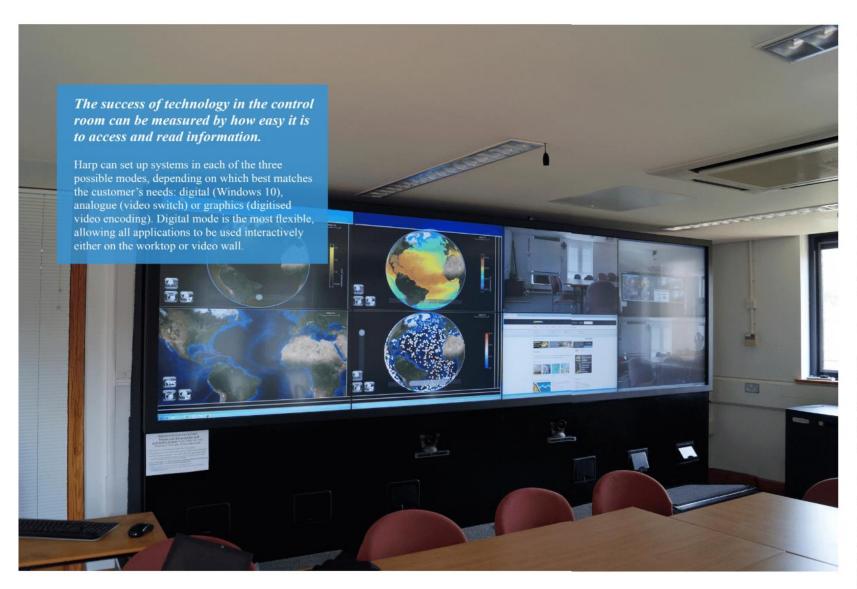
Information

What needs to be viewed, and when, is vital to proper planning. Topographical maps of processes and networks may need constant monitoring, and environment information that could affect the network to be easily invoked. Notable changes can be programmed as 'alarmed events', triggering on-line diagnostics and fault tracers.

Timed events can be planned to account for shift-changes, or to routinely monitor different networks or processes.



Deployment technology



Proprietary tools, designed by experience

Selecting the appropriate, quality parts of the system is one part of the solution. Making them work seamlessly together is where Harp excels. Harp has designed its own innovative system management products in response to customer input on the many and varied ways they wish to work.

Harp Merlin

A drive electronics module which allows users to view up to 64 connected screens 'as one' - to show large spreads of information that could only be viewed piece-by-piece on a single desktop monitor. The Merlin manages the visual flow on the (perceived) 'giant' screen, displaying seamless movement in real time.

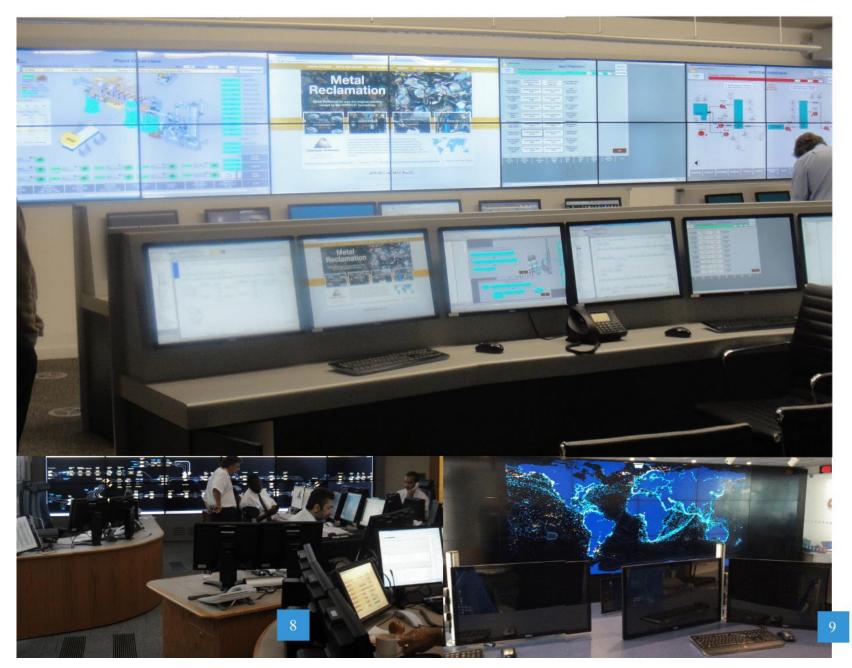
Harp Commandant

A powerful touch-panel interface for the display wall, which allows users to control applications by selecting and moving windows, imposing scenarios (which give a pre-configured position and window size to multiple applications) and activating salvos (to launch applications either at the touch of a button or when triggered by an alarm or timed event).

Harp KAMServer

The Keyboard And Mouse Server is a sophisticated tool which allows the system operator to 'toggle' the function of the master workstation's mouse and keyboard, so the scope of their control can be switched from the single workstation to the full display wall and back again.

Command and Control



Control Room

Harp bring the to the table the ability to integrate and distribute image sources of different ilk's and combine them into a display canvas that allows operators and managers to perceive the whole world as they know it. The video wall enables operators to view processes going on upstream and down stream from their own responsibility.

It allows managers to see at a glance what is right and what is wrong with their operation. Incidents can be magnified and shown as a major concern on the video wall. Clients can see from the video wall immediately how they will be looked. After installation of a video wall the control centre often becomes a show piece of guest visits.

The video wall becomes the centre piece of a network or operation centres as the complete overview can be seen from which key decisions can be made. Incidents can be triggered automatically which are immediately highlighted on the video wall allowing decisions to made on up to minute information condensed into one place, the video wall.

Users of Harps Video Wall include:

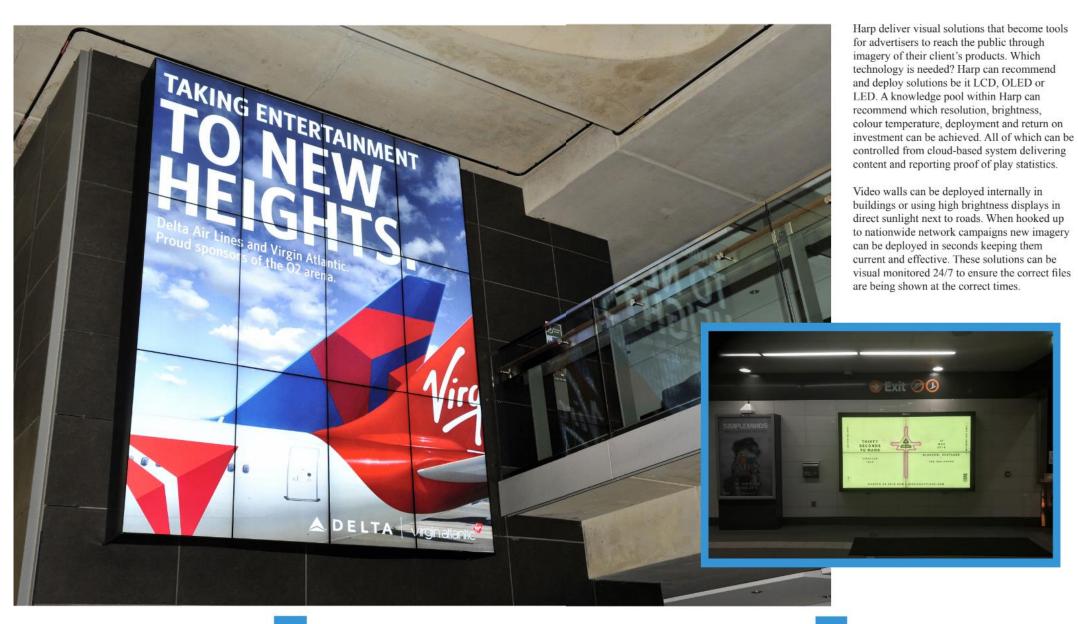




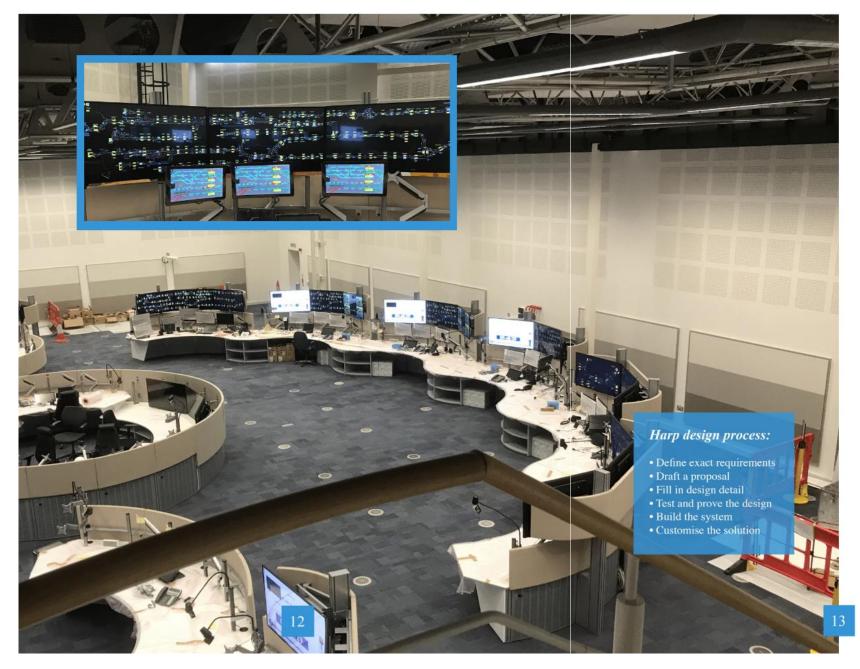




Dynamic Signage



Designed to be right first time



It is very important that sufficient time is given to the initial planning phase, to ensure that the finished solution is right first time. To facilitate the process (for both the designers and end• users of the room), Harp generates real-look 3D renderings of the room to show how the needs of operations staff, managers and customers will be met, and how the elements will look together.

Human ergonomics are the first considerations
- the size of character a person can read at what
distance, how many people form key viewing
groups and where they can be seated

The physical environment has to be carefully controlled. Automatic daylight following lighting, audio levels, ventilation, air ionisation and humidity all need to be considered to keep staff comfortable and productive

Software integration is another vital consideration. Harp engineers can evaluate any applications the customer is using, and advise on how they can be implemented in both the small and large screen environment for maximum efficiency:

Project management is key to the smooth running of the design and build operation. A sophisticated control room may need video walls, consoles, fixtures and fittings, viewing galleries, presentation rooms, imaginariums and war rooms. Harp orchestrates the delivery and deployment of the equipment, puts the infrastructure in place, and remains the central point of contact responsible for every aspect of the room.

When mission-critical work is taking place in a control room, a range of auxiliary rooms may be required - either to support the mission and its people, or to show-off the sophisticated operation running behind 'closed doors'. Sales and marketing teams may benefit from demonstrating technology-in-action to their own potential customers, so Harp has devised ways by which the hi-tech show begins the moment someone walks through the door.

Harp solutions to support the control room include:

Reception detail

Moving display panels (such as large LCD screens) presenting a strong message for first impact.

Presentation room

Maintaining a room dedicated to presentations is a good way to impress customers with the perceived commitment to winning their business. Harp can equip rooms with complete audio-visual capabilities, for simple presentations in Microsoft Power Point to full simulation suites

Viewing galleries

These allow customers to see the extent of the control room operation without interfering with it. A variety of high-impact 'techno-toys' can be used to hype up the impression, such as SNAP glass, which initially appears frosted (and as such can act as a screen for rear-projected messages or images but clears at the touch of a button to reveal the real view.

Signage

Flat panels can be arranged on walls to provide images and messages, from tactical information in rest areas to dynamic advertising along corridors.

Call centres

Wherever there is an operational centre, there is often a call centre nearby. Visual information can be relayed into the call centre to provide vital, up-to-date information on the network - such as when repairs are due to complete.











Full service offering

In a control room or similar environment, continuing availability is the measure of the installed system's success. Harp offers a full support programme to ensure that mission-critical centres remain fully operational, with engineers located both in the North and South of the UK to provide timely support as required.

- · Next-day on-site callout
- · All spare parts (down to board level) always in stock
- · Full module replacement
- · Swappable units for items needing off-site repair
- · Fully trained engineers

VODAFONE

- · Documentation for all system parts
- · 24-hour telephone support
- · Preventative maintenance programs

Customers already using Harp Visual Communication Solutions to meet their control room objectives include:

DOCKLANDS LIGHT RAILWAY MESSAGELABS CGI GLASGOW UNDERGROUND LONDON UNDERGROUND FUTURE CITIES CATAPULT SATELLITE APPPLICATIONS CATAPULT MERSEYTRAVEL B & Q NETWORK RAIL UNILEVER NORTHUMBRIAN WATER NATO FOREIGN OFFICE CUSTOMS & EXCISE STRATHCLYDE FIRE BRIGADE THAMES WATER BP BT REUTERS

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