H A R P

VISUAL COMMUNICATION SOLUTIONS

If you would like Harp Visual Communication
Solutions to help put you clearly in control –

please call us on 01489 580 011, and ask for our
New Business Manager.

We look forward to showing you the bigger picture.

H A R P

VISUAL COMMUNICATION SOLUTIONS

Harp Visual Communications Limited

Unit C4 Segensworth Business Centre

Segensortworth Road

Fareham

Hampshire

Po15 5RQ

Tel **01329 844005**

Fax **01329 843203**

www.harpvisualsolutions.co.uk   www.harpvisuals.com

CONTENTS

In a 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.

More important still, Harp is able to deliver the total solution – from the room design and layout through to the software integration of the display wall – with hands-on project management and maintenance support at every stage, from initial planning to everyday operations.

It is this combination of technological expertise and total management ability that has made Harp Visual Communication Solutions the largest installer of display wall systems in the UK.

Managers… Clearly in control
- Fast, reliable delivery of information to facilitate decision making process

Sales teams… Clearly in control
- More information, better presented, shows customers you have every angle covered

Customers… Clearly in control
- Sophisticated presentation of vital information assures customers they are being dealt with by professionals

System operators… Clearly in control
- Fingertip access to overview and auxiliary information puts you firmly in the driving seat

European Space Agency, Harwell, Oxfordshire

In putting together the right hardware and software solution, Harp has to consider the working controil room from literally every angle. The first consideration is always the main limitation: the human eye. Once it has been established how many people will need to view information, an how much of it, the basic logistics can be set.

The rest follows on, with no element too small to consider in the overall effectiveness and comfort of the working solution. By considering first the people, rather than the equipment they currently use or will be using, the final implementation will be designed to meet the customers main objectives - without comprimise.

Objective

Companies use display 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 display 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.

4

5

Customs and Excise, Kent

The success of technology in the control room can be measured by how easy it is to access and read information.

Harp can set up systems in each of the three possible modes, depending on which best matches the customer's needs: *digital* (XP and UNIX), *analogue* (video switch) or *graphics* (digitised video insertion). Digital mode is the most flexible, allowing all applications to be used interactively either on the worktop or display wall.

Easy reading is a function of the projection system, the applications used and the volume and type of information that needs to be seen. To ensure the best results in terms of reliability, brightness, clarity and uniformity – as well as the right level of functionality – Harp selects the most appropriate technology (such as DLP, DLV, Polysilicon and TFT) as developed by industry innovators.

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.

Merlin

A drive electronics module which allows users to view up to 16 connected screens 'as one' – to show large spreads of information that could only be viewed piece-by-piece on a single desktop monitor. The NTDW manages the visual flow on the (perceived) 'giant' screen, displaying seamless movement in real time.

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.
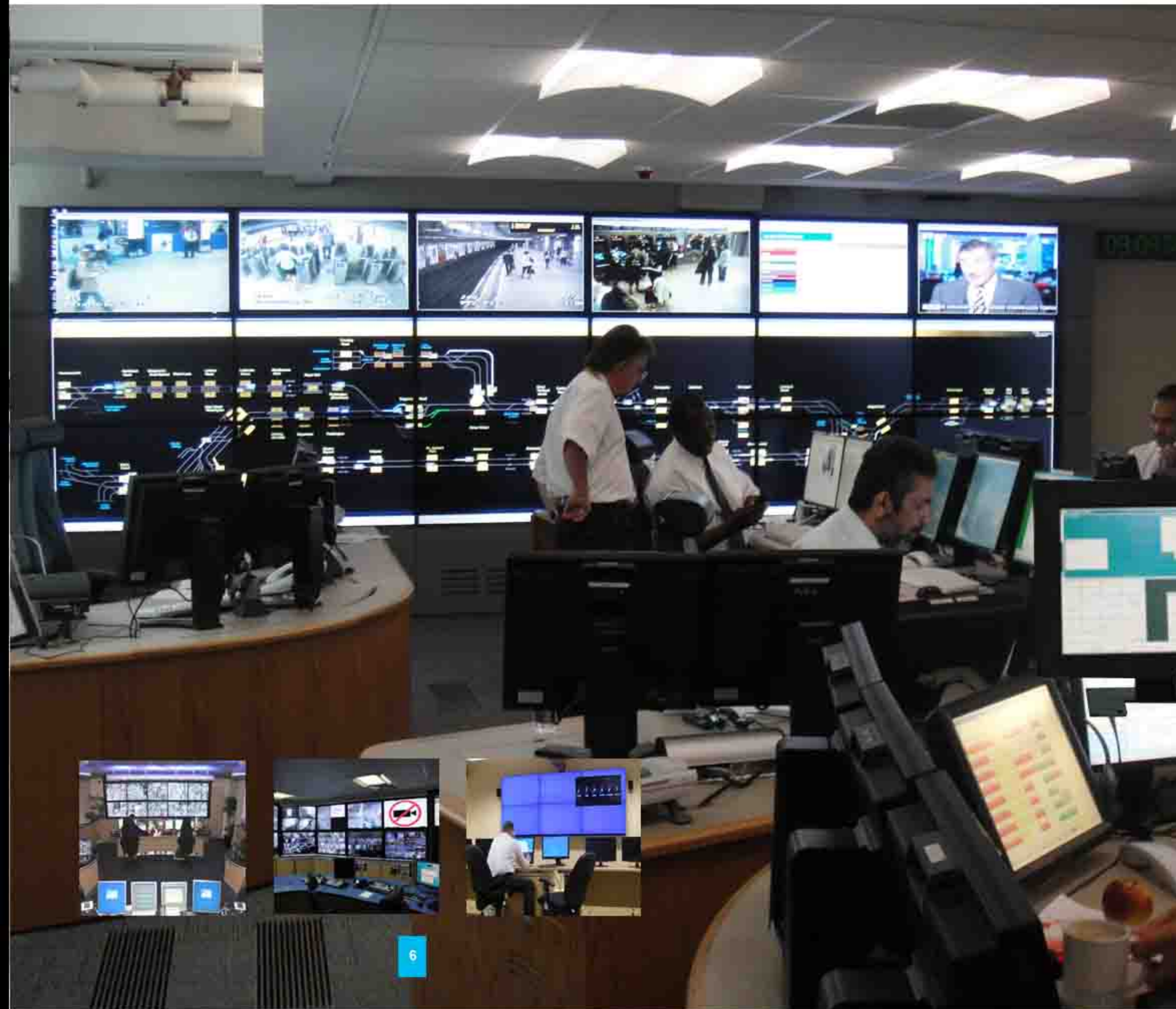
6

7

London Underground, Westminster

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. Repeater panels may be needed in a large control room for those not in direct view of the main screen.

While much technology is available to choose from, some hi-tech hardware is capable of more than is actually required, and using it can result in costly over-engineering. For example, although the brightness, clarity and colour uniformity of screen images are important, it is pointless to try and show high resolution pictures which the eye cannot resolve from a distance and large groups cannot get close enough to see.

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. Other factors to consider include how to bring the outside world in (with global clocks, piped news channels) and conversely how to keep it out, such as installing security doors.

Software integration is another vital consideration. Harp engineers are able to 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 display walls, consoles, fixtures and fittings, viewing galleries, presentation rooms, imaginariums and war rooms. Maintaining the corporate look may also be important, so degrees of 'badging' have to be considered. Whatever the scope of the requirements, 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.

Once the system is up and running, the help continues. Harp engineers are always available to refine operational detail, allowing the system to evolve with the customer's changing priorities.

Harp design process:

• Define exact requirements • Draft a proposal • Fill in design detail • Test and prove the design • Build the system • Customise the solution.

environment

ergonomics

software

integration

3D rendering

Image by Evans Consoles Inc.

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 plasma 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. For those who want to look and touch, Repeater Panels can be installed to bring key information into the gallery, allowing the presenter to refer to and interact with live information via a touch panel.

Image re-enforcement

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
- 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:

AVIVA
BAA
BARCLAYS
BBC
BLOOMBERG
BP
BT
CABLE & WIRELESS
CENTRICA
DOCKLANDS LIGHT RAILWAY
EUROPEAN SPACE AGENCY
FUJITSU
GLASGOW UNDERGROUND
JC DECAUX
LONDON AMBULANCE
LONDON UNDERGROUND
MERSYTRAVEL
MESSAGELABS
MOD
NATIONAL GRID
NETWORK RAIL
ORANGE
PRUDENTIAL
ROYAL MAIL
SIEMENS
SHELL
SKY
THAMES WATER
THOMPSON REUTERS