

National Car Parks Ltd [UK]



Operational efficiency for Manchester city

National Car Parks Ltd. (NCP) has been synonymous with parking in Britain for over 60 years employing over 2,500 staff in the UK and operating a portfolio of more than 500 car parks in the UK including ten of the country's busiest airports. NCP Manchester Ltd. (NML), a joint venture between NCP and the Manchester City Council, provides an integrated parking system within Manchester's City Centre Management Plan, Local Transport Plan, and Community Safety Plan.

Barco's iSurveillance for NML: efficiency and scalability

NCP Manchester Ltd. (NML) was developed in response to the changing city environment and increased customer demands. The joint venture has provided investment in over 40 car parks including installation of digital CCTV, a state of the art 24 hour control center, variable message signage on routes and the installation of modern control equipment.

NML chose projection over monitors because the project has a 20-year shelf life. "With the gradual demise of CRT, we wanted to ensure we were using an up-to-date technology which provided a dynamic front end, offering flexibility," says Neil Robson, NML Project Manager. "The virtual array of monitors with scalable image size can not only display a varying number of channels, but can also show a large image to a number of operators."

Neil Robson continues: "Next to this, we chose Barco's solution for cost efficiency reasons and for its scalability. In the future we want to increase the number of channels within the existing set up, and the system provides expansion capabilities of at least 50%."

BARCO

Visibly yours



Future-proof visual performance

In the control room of NML, Barco installed 6 ATLAS 84" display walls with 6 HYDRA controllers offering a powerful overview tool to control all incoming images. Two different operations are used side by side: on the right hand side, the displays in the control room are used for event-driven car park control (control of 19 car parks), whereas the left hand side is used by the local authorities and the Greater Manchester Police to control the city center enabling them a swifter transfer of real-time information to officers on the ground. The layout of the control room allows for additional projection modules to be added in the future with minimal impact. Barco's rear-projection solution is less space consuming than 16 monitors in a console and also more ergonomic as the projected images are much easier on the eyes than old CRT monitors.

Ultimate flexibility and efficiency

The configuration of the HYDRA controller

enables additional channels to be added to the system in the equipment room without interfering with operations in the control room. The control room and the equipment room are completely separated; the only links are the cables for the displays and the keyboards..

Barco's 84" ATLAS and the HYDRA turns the display wall into a virtual array of monitors with scalable image size. All operators have a highly user-friendly control system consisting of 3 flat panels showing them video or control information. Depending on the type of operation (city center monitoring or car park monitoring) the Flash-based user interface developed by Synectics (UK) can either facilitate navigation (map information, 3D information, control buttons) or actions (open/close barriers).

For city center monitoring, i.e. typical CCTV operation, Barco's iSURVEILLANCE solution allows NML to display the

images in a variety of different formats, i.e. full screen, two by two, four by four and polo.

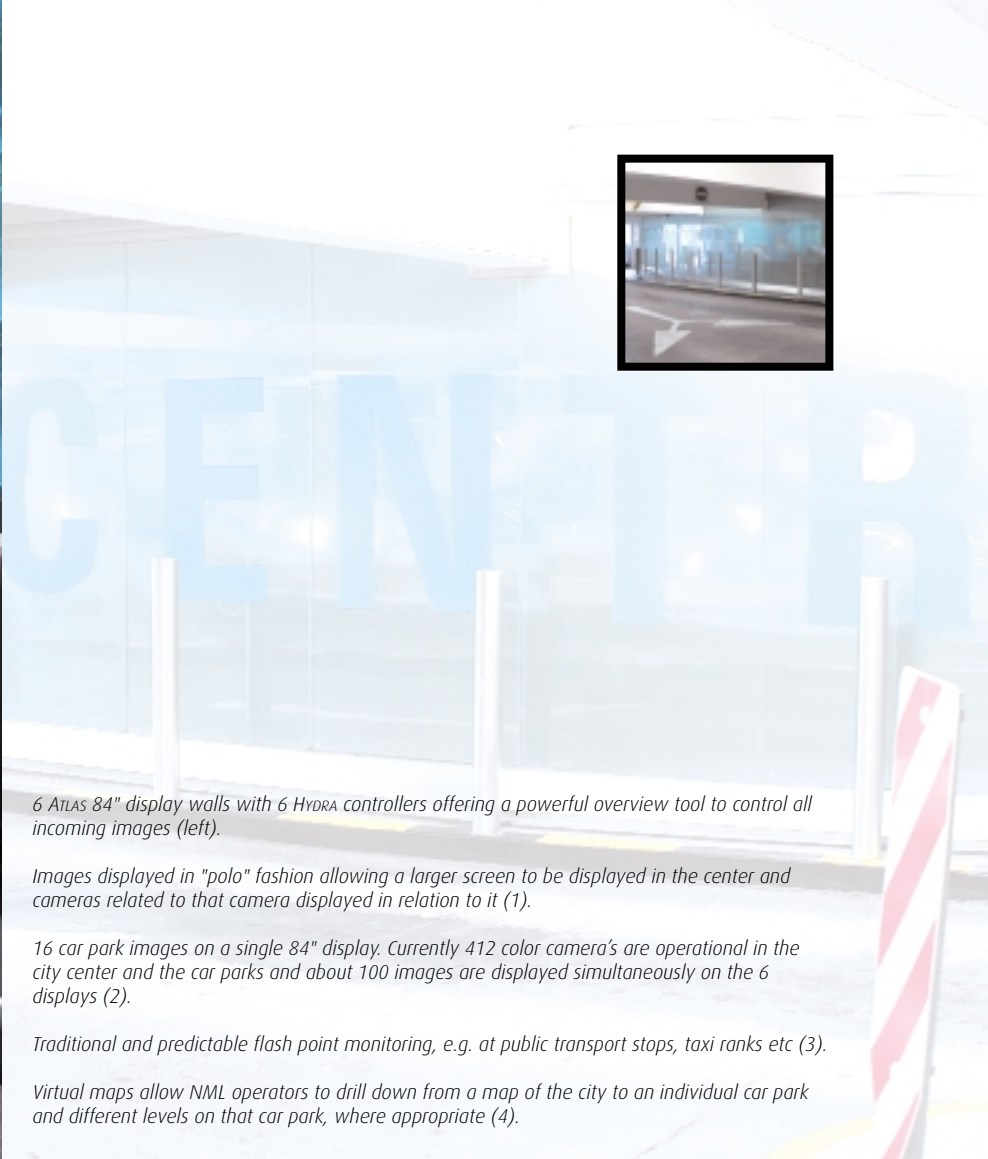
Also, if a specific set of cameras covering a zone (a so-called flashpoint) are to be monitored routinely, then these views can be retrieved and displayed on the screens by the press of a button.

The car park operation is subtly different from the CCTV operation through the use of virtual maps. It allows NML operators to drill down from a map of the city to an individual car park and the different levels of that car park, where appropriate.

Video networking

The car parks managed by NML are connected to the operations center by a fiber optic network. This network currently links 19 car parks.

The plans are to expand this to 21 car parks around the city center. This video network allows the operators to receive



6 ATLAS 84" display walls with 6 HYDRA controllers offering a powerful overview tool to control all incoming images (left).

Images displayed in "polo" fashion allowing a larger screen to be displayed in the center and cameras related to that camera displayed in relation to it (1).

16 car park images on a single 84" display. Currently 412 color camera's are operational in the city center and the car parks and about 100 images are displayed simultaneously on the 6 displays (2).

Traditional and predictable flash point monitoring, e.g. at public transport stops, taxi ranks etc (3).

Virtual maps allow NML operators to drill down from a map of the city to an individual car park and different levels on that car park, where appropriate (4).



1



2



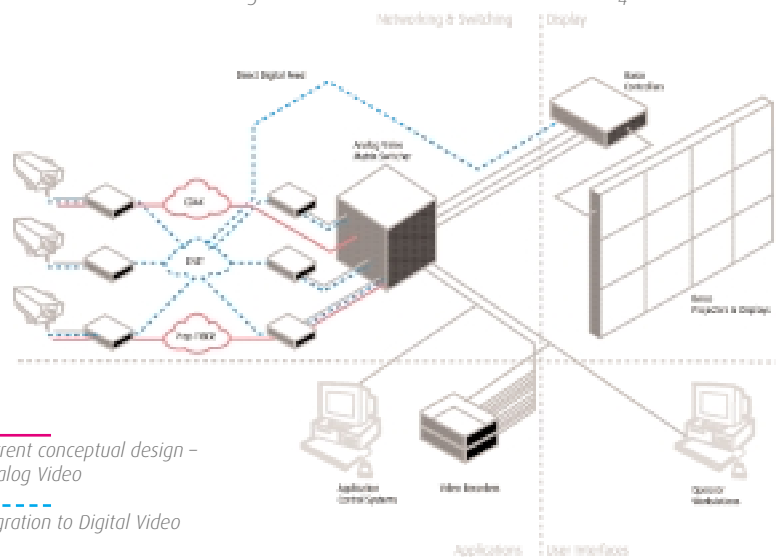
3



4

constant real time information about the car park capacity and equipment status. In doing so, the system allows the operations center to dispatch engineers to address equipment faults before they impact on the customer.

Currently, the video transmission is done with traditional analog video fiber transmission; a digital video network is planned for the future. Barco's solutions are digital ready and allow a graceful migration to a digital network with simple card replacements (see diagram on the right).



Current conceptual design - Analog Video

Migration to Digital Video



Economies of scale

Barco's iSURVEILLANCE solution also provides considerable savings in energy consumption, capital and running costs of air conditioning. Compared to monitor replacement costs, Barco's solution has a cost of ownership that is substantially lower.

Barco's technology equals real value for NML

- **Cost saving** technology leads to reduction and improved council net income.

- **State of the art hardware and software** allow for state of the art monitoring enabling customers to park safely when going about their normal daily business.
- **Ultimate visual performance** reflects high quality parking provision and operations.
- **Flexible and efficient technology** results in real time information on parking options for occasional users of the city center.

- **Modular, future-proof and scalable solutions** facilitate future growth path for NML.
- **Upgradable technology** allows a simple and graceful migration to eventual deployment of a digital network used to support multi-user and inter functional cooperation (e.g. City Surveillance, Local Transport Management and Parking Surveillance).

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