

New life for the Dome

The white elephant has been revived. The a-v content, rather than the technology, in the original Millennium Dome let it down, but now the structure has a new lease of life, reports **Geny Calosi**



THE BEGINNING OF the new millennium left Londoners with a huge dormant white elephant in north Greenwich. The Dome angered many people because of the ludicrous amount of taxpayers' money – £750m – spent on something that only lasted a year and was closed for five.

But the days of the Dome's useless existence are over. Now it has become a vibrant gathering space with plenty of things going on at any one time. This is the birth of 'The O2.'

Leisure company AEG, which owns three major league soccer franchises in the US, including the Galaxy as well as the Los Angeles Kings National Hockey League side, acquired the Dome in 2005 and partnered with mobile company O2 to create a new space where entertainment, customer care and the latest technology are centre stage.

In September 2006, AEG Europe also acquired a majority stake in Thames Clippers, London's largest fleet of commuter boats, improving transport connections to the Greenwich Peninsula and The O2 along the river.

The O2 is expected to host up to 150 world-class music, entertainment and sport events in The O2 arena in its first year. Within the facility, there is also a smaller music club, the Indigo lounge, with a capacity of 2,200. Vue also has an 11-screen digital cinema. An ice rink, exhibition space and a 'entertainment avenue', featuring more than 20 bars, restaurants, retail and leisure facilities, are part of the offering as well.

The venue will host the Olympic gymnastic and basketball finals in 2012, and will be home to sport from both sides of the Atlantic – NHL and NBA games will be played there. In November, the Tutankhamun exhibition, that has been travelling the world, can also be seen here.

The O2 has several exclusive and VIP bars, which O2 customers have priority access to, and they can take up to two guests with them.



One of these areas in particular, the Blueroom bar (see *this month's cover*), is impressive. The rectangular room has a long bar crowned with a 45x6m projection wall, using five R12 Barco projectors. Visitors can have a say on what is displayed on the wall. They can text-vote to change the wallpaper and use text messages to send requests to the bar's jukebox.

WALKING AROUND THE O2

From a distance, The O2 may look like the same old Dome, but on approaching it, it's easy to forget what it was before. The place buzzes with energy and colours.

A highly visible meeting point under LED coloured balls is one of the first things you'll see as you go in. The O2 Concierge, a meeting point and venue information hub, is the first experience of the O2 brand you will have as you walk through the door, while social areas – specially designed exclusive bars and lounges – allow visitors to relax in customisable music environments.

Easy-to-understand sign posts help visitors find their way around and the new structures makes it more human in scale – not a vast warehouse as before. There are also digital signage columns letting you know what's going on, where and when.

And if you still can't find what you're looking for, there are human interfaces – the O2 Angels – dotted around the venue to help. The angels, friendly young women in dark blue bubble dresses with small white wings, are used at the Concierge to manage the VIP Upgrade service, helping people download a map of The O2 or cinema times to their phone. They can also book a restaurant or bar for you within The O2. In the arena, the angels are used to deliver gifts to visitors in lucky seats, as well as assisting in the O2 Create and O2 Chill areas.

THE ARENA

On June 24, the arena opened with a sold-out concert by Bon Jovi and it has been going strong ever since.

The centrepiece of The O2 is the 20,000 capacity arena, London's first purpose-built music venue since the Royal Albert Hall in 1837. The O2 arena is designed specifically for music events, while retaining the functionality needed to transform it into an indoor sports facility within hours, meaning that it can accommodate a wide range of sports and entertainment events.

The acoustic features provide a balanced sound, achieved by treating the underside of the roof, the upper walls, balcony fronts and seats to absorb sound and reduce the risk of echoes or unwanted audio reflections. These are as up to date and advanced as any venue in Europe.

Vanguardia Consulting commissioned the sound, noise management and acoustical aspects of The O2 arena. The firm's task was threefold – completely acoustically insulate The O2 to minimise any noise spill into the environment, specify an internal acoustic design to control reverberation time (RT) to two seconds in the mid frequencies, and install the sound system for the main arena and provide advice for the Indigo lounge.

The O2 arena can be transformed from a venue for sports – taking out the first seven rows to allow ice hockey, for instance – to a more intimate room for fewer people. To make the room seem smaller and have a more theatre-style sitting, there is a big cloud that comes down from the ceiling and takes out the sweep level.

THE ENTERTAINMENT AVENUE

Occupying 60 per cent of the venue's floor-space, the Entertainment Avenue, which is as wide and as long as London's New Bond Street, surrounds the arena.



Opposite: On entering the venue visitors are greeted by The O2 concierge – a meeting point and information hub. Far left: Vue 11-screen cinemas offer a range of Hollywood blockbusters as well as niche genres. Above: O2 Create is an area where guests can make their own music video. Left: O2 VIP bar

The district's main elements are:

- **The Live Music Club.** Operated by AEG Live, Indigo, a live music venue, has a capacity of 2,200. Containing both a standing area and amphitheatre seating, the club provides an opportunity to showcase established artists and emerging talent. In this pitch black venue, it is always night time.
- **The Cinema.** Constructed over two floors, the deluxe 11-screen cinema, including a premiere screen, has been designed to accommodate lavish premiere and gala events, and offers a range of films from major Hollywood blockbusters to art-house and niche genres.

NEC provided the HD digital cinema projectors and system for Vue at The O2. 'Most of us might remember our first cinema experience,' says John Beeden, general manager of the business technology division at NEC, and 'NEC would like people to recall their first digital cinema experience.'

The digital cinema can also deliver live events and experiences in a variety of ways. For example, as part of The O2's converged network, the digital cinema can be transformed to an overflow facility for a live concert, with real-time streamed content broadcast from the main arena. Using a digital projector provides further possibilities, such as real-time gaming, lectures or displaying HDTV.

The premiere screen, which is 22m wide, is quite exclusive. Arranged around the curved screen, the 'first-class' seats have plenty of legroom and drink holders. It also has a limited number of seats, so everyone gets a prime position.

Beeden says that this kind of arrangement, together with the possibilities that digital cinema brings, will give



Above: RFID scanners currently used for staff access. Right: The O2 store is not just about selling phones, but encouraging people to explore different areas of their phones



KEY TECHNOLOGIES

Cinema technology

- Europe's first custom-built digital cinema complex
- NEC NC2500S 2048x1080, 2,000 lumen DLP projectors
- Dolby DMA8+ digital speaker system

Network technology

- NEC Univerge sv7000 native ip server
- Unified communications
- 573 fixed-line telephones using IP

VENUE MANAGEMENT

- 49 servers
- 21 RFID readers
- 72 intermediate communication rooms
- 273 personal computer and laptops
- 320 wireless access points
- 520 fixed-line telephones using internet protocol

cinema lovers the perfect reason to get back to the big screen. He also pointed out that 3D cinema is making a comeback and said it could work very well in this kind of venue.

- **Restaurants.** The entertainment district has more than 20 bars and restaurants, such as The Gaucho Grill, Raan, Inc Bar, Starbucks, S&M café and Thai Silk.
- **The Bubble.** The exhibition centre will be arranged on two levels, covering more than 6,500m². Planned to museum standards, in November 2007 it will host the Tutankhamun exhibition before it returns permanently to Egypt.

CHILLING AND CREATING

Other areas in The O2 include the Chill Zone, where visitors can relax. In here you can enjoy a massage or put on a pair of headphones and listen to your choice of music and dance to at leisure. They call it the silent disco... Yes, you will look a bit strange dancing on your own, but long live 'freedom of expression'.

At the O2 Create area you can star in your own music video. Your friends and family can also participate and you can even nominate who the director will be. You will also be able to take a copy of your performance home with you – it will be sent to your mobile or to e-mail address.

How does it work? There are three pods, which are the stage, and each pod has a screen and a webcam. On the back on the screen there is another touch screen, where the 'director' can choose from a choice of videos and special effects. The stars will be filmed dancing and singing along and, once finished, passersby can see the videos on the screen at the top of the columns in the centre of the media hubs.

CONCEPT STORE

Unique to the venue, the O2 concept store is there to teach and amuse visitors, as well as sell phones and services.

Based on interactivity and education, it aims to inspire customers by encouraging them to explore the features of their O2 phones they would not normally use.

Designed by New York architect JDPA, the store has DJs,

photographers and gamers around the store who will encourage and motivate customers to use their phones in innovative ways.

You can visit the interactive work tables and learn how to use these O2-enabled products and services. Each focuses on one specific creative feature – music, photo, gaming and video.

THE O2, A SMALL CITY

The network and communication infrastructure in the O2 is similar to one you could find in a mini-town, said Richard Farnworth, general manager enterprise solutions NEC. The backbone of the O2 is formed by 15,000km of cable.

From artists to clients, VIPs and sponsors of the venue should be able to connect them to anyone they want. There are, for instance, 96 corporate boxes at the O2, which have a specific number allocated to them. There are also about 400 hotspots.

AEG worked with NEC to provide a fully converged IP communications network that includes a single-network infrastructure for all voice, data and IT communications throughout the venue.

The network infrastructure, built by NEC using data products, is a fully integrated, flexible system that allows users – fixed and temporary – to stay connected regardless of their location in the venue or their communication device.

NEC has also included built-in component redundancy with a duplicate server to handle voice data traffic, and a secondary communications facility to be used in the unlikely event of an entire venue failure.

The NEC system also caters for expansion, and NEC also took care of the computer applications throughout the venue.

No one is going to get lost this time around – The O2 is equipped with NEC's venue-management smartcard solution. The system, which employs RFID tags, will be used initially for staff access and attendance. Plans are in place for development of a membership loyalty scheme and as a platform for providing a seamless and unforgettable customer experience at The O2. □