City Harbour is a property development in the Crossharbour area of the London Docklands close to South Quay and Canary Wharf. The multi-million pound site includes 7 blocks of luxury apartments situated just two minutes’ walk from the Docklands Light Railway with easy access to Canary Wharf, the City and Lewisham. The development was completed in 1997 and included, what was then, a high tech video entry phone system connecting each of the 12 apartments to the remotely opened front door in each block. The system allowed tenants to view and speak to a visitor before entry and provides both security and peace of mind.

However, over the intervening years, the analogue video entry system has suffered several breakdowns while advances in technology has made the image quality less than acceptable to what is considered as high quality by modern standards.

Obscure analogue

Following another breakdown of the old analogue video system in July of 2012, Parc Properties, the management agency for the block began to investigate an alternative video entry phone system. A key requirement for the new system was to offer better quality digital video with more reliability. In addition, the new system needed to be accessible by the porter to provide an additional level of security for the development.

Parc Proprieties examined a number of video entry systems from several suppliers. “Future proofing was also a key requirement,” explains James Ingles, Property Manager for Parc Properties, “The entry system needs to be in place for ten to fifteen years and it was important that we found a system that could offer us reliability with the potential to offer additional value to the leaseholders.”

Unlike many of the competing bids for the project, NIMATA, a specialist in access technologies, proposed a solution based on MOBOTIX technology that also combined additional value through a partnership with a high speed broadband provider. The proposal offered MOBOTIX T24 video entry phone units at each door connected via an internal IP network to deliver bi-directional audio and colour high resolution video to a Grandstream IP based video phone within each apartment. From the video phone, tenants can see and communicate with any visitors and open the front door remotely.

In addition, by wiring each apartment with Ethernet connectivity, the project would also provide optional high speed internet connectivity to each tenant. “As this area does not have a high speed internet service, the proposed project by NIMATA, offered additional benefits to the leaseholders alongside improved security,” says Ingles.

As each leaseholder pays a contribution to a building sink fund through its service charges collected by Parc Properties, it was essential that the entry phone system offered good value. Through a consultation process and detailed examination of the competitive tenders, City Harbour Properties Ltd decided that the NIMATA proposal offered both the best value and overall suitability for the task.
Integrated Solution

Advanced Technology
The seven MOBOTIX T24 units used in the project include a high resolution digital camera, keypad and systems to interface with the door lock release mechanism. With 3.1 megapixels and internal memory, the hemispheric door camera records the entire entrance area from wall to wall and from floor to ceiling with no blind spots.

Each T24 also has a built in SIP server to allow the camera to communicate with the video phone in each apartment. However, this basic SIP server only has a limited number of connections, so NIMATA developed its own SIP server appliance to interface with the T24 to manage up to a 1000 connections from a single video entry unit. This also has the advantage of allowing every apartment to contact any neighbour as well as the porter directly from the video phone without incurring any calling charges.

Decentralised Technology
MOBOTIX is the pioneer of a decentralised approach to CCTV which simplifies installation and operational considerations while improving overall security and reliability. In this decentralisation architecture, all image processing, recording logic and decisions are made in the camera itself. This is in complete contrast to most other CCTV systems, where the camera typically has no real intelligence and relies on decision making and image processing taking place at 'the core' of the network via centralised software or DVR. As the camera can store video within the device and only needs to send video to a central repository at the discretion of the operator, building owners no longer require an expensive and complex monitoring station or dedicated wiring across the site.

With the project agreed, in August of 2012, NIMATA worked with external contractors to install the required CAT-5E structured cabling throughout the blocks and into each apartment. Working with fibre optic broadband provider Hyperoptic, the project also connected all 84 apartments with optional 1Gbs high speed internet access.

Tenants can now communicate with and view visitors in high resolution colour before releasing the main door. Via the video phone, tenants can also pan, tilt and zoom the camera to get a better view of the surrounding area. The porter for the development can also view entry phone images from his cabin and communicate with visitors as well as scanning the area for any issues. Although the system offers a great deal of flexibility in viewing options, each camera and viewpoint is only accessible to authorised personnel from registered Video Phones, PC terminals and optional mobile devices.
Future proofed

“We take the security of the building occupants very seriously and the NIMATA video entry phone system has met our expectations around image quality and reliability,” says Ingles. “The system has been well received by our residents and also the accessibility of high speed internet is a major benefit for the whole development.”

The video entry phone system also has a number of potential upgrades including allowing visitors to leave video messages for tenants who are not available, for example if a tenant is out and a package needs to be delivered. In the future, the system can be upgraded to notify tenants and allow two way communications with a visitor via mobile devices such as smartphones or tablets.

“The system has performed well since installation and we now have the option to upgrade many of its elements as our requirements evolve – overall, it has been a very successful project,” Ingles adds. Based on the success at City Harbour, Parc Properties are now considering working with NIMATA to upgrade several other properties it has under management across London and the South East of England.
MOBOTIX has developed and manufactured IP video systems, video management and analysis software in Germany since 2000.

MOBOTIX stands out for its **high level of reliability**. All outdoor cameras are subjected to a stress test for temperatures between -30°C and +60°C (-22°F and +140°F). Without additional components, without heating or cooling and with no moving parts (for example auto iris), they are virtually maintenance free.

MOBOTIX delivers a **perfectly matched package**, starting with the microSD card for storage management and HD audio (microphone and speaker) with VoIP telephony through video analysis, a professional video management system and motion detection software reducing false alarms.

The **decentralized architecture** means that a central computer is not required and the network load is minimal. The intelligent cameras from MOBOTIX process and store image data themselves, trigger events and, in the event of remote access, manage the frame rate and resolution depending on the available bandwidth.

The **6MP Moonlight sensors** and complementary **thermal imaging technology** ensure reliable detection of moving objects, even under the most challenging light conditions and over long distances. As a result, it is possible to cover large areas with just a few cameras. Less power cabling, less IT infrastructure and fewer additional light sources are needed. MOBOTIX cameras are powered using standard PoE and do not require more than 4-5 watts.

An intelligent IP video system from MOBOTIX allows you to **reduce total costs**. The investment pays for itself after a short time and the free-of-charge software and updates ensure it is a future-proof investment.

Retailer information:

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