



Motor Yacht Chamar

The brochure describes the Motor Yacht Chamar as ‘fifty seven metres of jet-powered luxury; twelve guests, fourteen crew; impeccable, incredible interior’. But that does not prepare the visitor for its stunning opulence. The magnificent yacht (www.mychamar.com), used solely by its owner for the last 12 years but now available for charter, will no doubt have the rich and famous beating a path to its dock, which in summer is in the Mediterranean, and in the winter the Caribbean.

Given all the luxury and glamour of private yachts, upgrading the CCTV system on board must have been an enviable task. “Up to a point,” says installer James Welch of Welch Services Group. “There is no doubt that working on an attractive and well-appointed yacht with such a high quality of

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craftsmanship has been a delight for me. But there is also a challenge to it, in terms of both the technicalities of working on a yacht and the cosmetic standards required, that made it the most demanding environment I have experienced in my thirteen years of security systems installation.”

The requirement for an upgraded CCTV system for Chamar came from two sides. First, any yacht of this type faces a number of security issues. The value of the boat itself is high – the rule of thumb build cost for luxury yachts is £500,000 per metre. There are also many valuable items on the boat, and the passengers themselves are typically people whose profile may give rise to security issues. All these factors give rise to threats of opportunistic theft, personal security concerns, and even piracy, still happening in the 21st century. The other driver to improve the security was a statutory requirement – the International Ships and Port Security (ISPS) Code demands a level of security that yachts such as Chamar must meet.

The new system was designed by James Welch, and all the equipment was supplied by Norbain. The existing 3 cameras were replaced with 10 fixed cameras and 2 Vista PowerDomes. The locations of the fixed cameras are on the walkways along each of the four passenger decks, below deck in the engine room, and in the passenger lounges, giving coverage of all the key points of access and movement on Chamar. With the internal surveillance requirements covered by the fixed cameras, the PowerDomes cover the top decks, and also have sweeping views to port and starboard from the main mast. The coverage of a few hundred yards from Chamar gives the required security surveillance both when in port and at sea.

On the bridge there is a DM Sprite Digital Video Recorder plus joystick for PTZ control of the PowerDomes. The camera images are recorded whenever there is motion detected, giving a high level of traceability of any people and of events – the camera placements and pattern of movement around Chamar is such that this event-triggered recording does not overload the storage volume of the DVR. The PowerDomes can either follow pre-set tours or be controlled by the joystick, according to the level of security required. There are three monitors on board, on the bridge, and in the crew mess and the radio room.

The DVR is also connected to Chamar's Local Area Network, enabling viewing and controlling of the cameras through any computer on the LAN, and viewing archived video images and subsequent printing on the yacht's networked printers.



The equipment list is similar to other systems, but its installation was not. There were three key considerations with every installed item. First, the sea is a very harsh environment for any materials and fixings. The salt corrodes many metals, and the constant vibration loosens screws, so all fixings had to be of the right materials. In addition, the moisture from the atmosphere and the daily washings of the entire yacht penetrates all but the most secure seals, so additional water sealant was needed on exposed parts.

The second engineering challenge was working with a yacht's structure. Any holes drilled in the wrong place, or needing to be drilled more than once through errors, could weaken the structure, or even compromise watertight compartments. Finally, there was the cosmetic requirement - the very highest quality of workmanship was essential.

The CCTV equipment installed on MY Chamar

Cameras

2 x Vista VPD-3WP-P-C 1/4" 18:1 External Day/Night PowerDomes (fitted to Port and Starboard Sides of main mast)

5 x Vista VVRDF4V8C Vandal resistant hi resolution colour dome cameras c/w 4 – 8mm varifocal DD lens (flush mount colour dome cameras fitted to Central Gangway, Upper Deck, Engine room x 2)

4 x Vista VVRD48C Vandal resistant hi resolution colour dome cameras c/w 4 – 8mm varifocal DD lens (surface mount colour dome camera fitted to fore Mast Port Gangway, Starboard Gangway, Engine Room x1)

3x Wattec WAT-202D (covert cameras) with Pentax C70404 Pinhole Lenses cameras)

Control / Recording Equipment

1 x Dedicated Micros DIG MUX REC16WY 320GB (fitted in the Bridge)

1 x Dedicated Micros DIGI SPRITE KED JOYSTICK (fitted in the Bridge)

3 x LCD MONITORS

1 x Molynx VID101 1 IN 5 OUT DIST AMP

Captain Stephen White is very happy with the new system. "It meets all our needs, both for the ISPS Code and the special way we undertake security on Chamar, which has to be both highly effective yet discreet. The operation of the system is extremely



simple and very robust – I told my crew to try to break the system during testing, and they couldn't. There are also management and safety benefits beyond security, in that the engine room can be viewed from the bridge if required, and I can see in general what crew members are doing and where they are."

“There is even scope in the DM Sprite for remote viewing and control from anywhere in the world via the internet, which we may implement. Finally, the install went very well, on a tight schedule during a major re-fit in Germany. It was a great job all round.”

James Welch looks back on a fascinating contract. “Everything went to plan, from selecting equipment that was robust enough for this tough environment through the delivery of the equipment from Norbain on the quayside in Germany exactly on time, to the fitting, testing, and acceptance of the system. Although this contract was hard work, with good reason, it was also very satisfying, and I look forward to further jobs in the yachting world.”