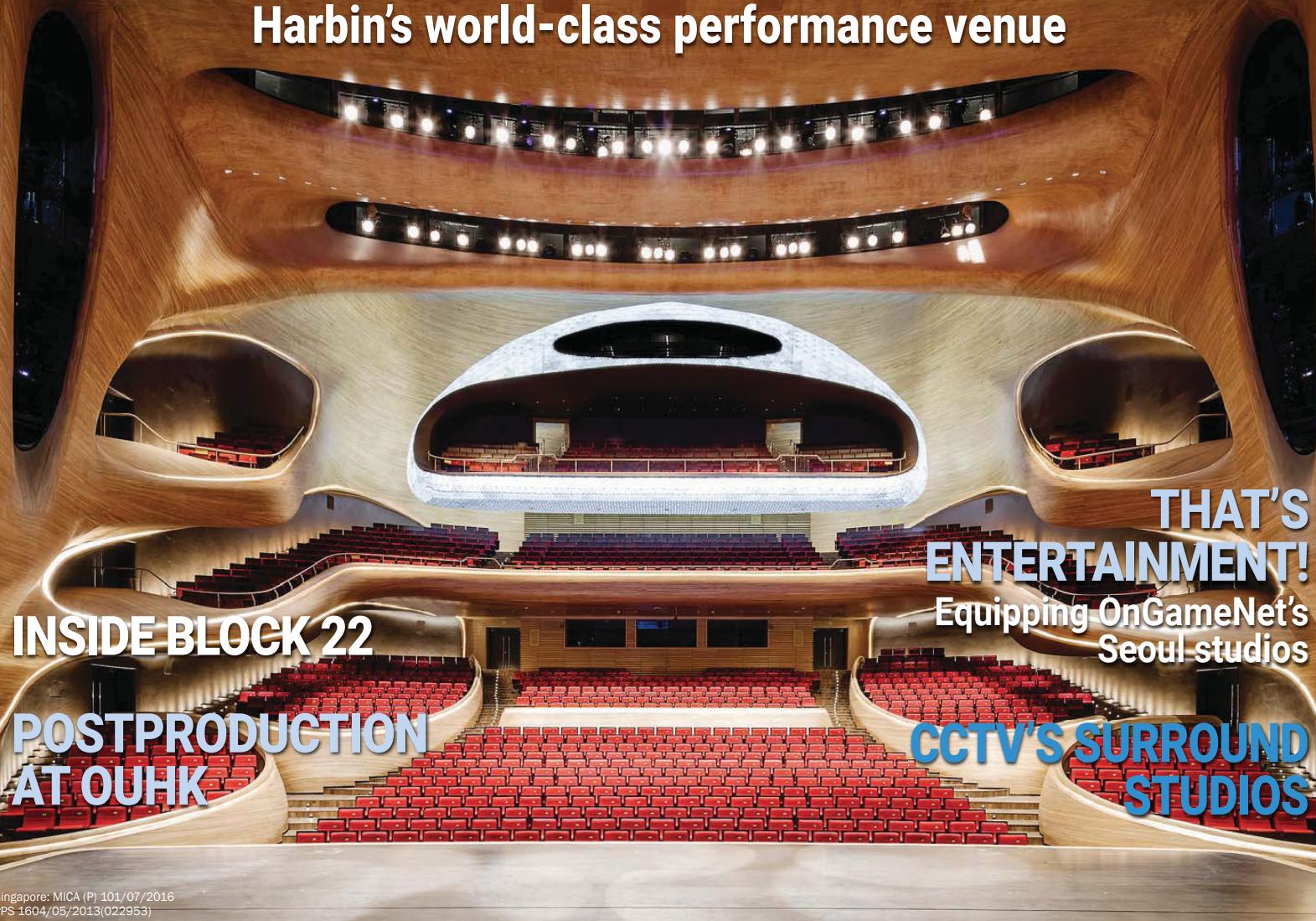


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Ballrooms A and B during set up for different functions

18 Martin Rush MH1 Profile LED moving heads provide various lighting scenes according to the desired ambience of the occasion



Make it Grand

The Grand Copthorne Waterfront is the latest Singaporean hotel to get an A/V upgrade courtesy of Concept Systems Technologies. **Richard Lawn** checks in



The Grand Copthorne Waterfront Hotel Singapore is a premier conference hotel

AS SINGAPOREAN HOTEL STANDARDS CONTINUE TO rise with customer expectations, hotel managers in the Lion State can no longer only focus on staff rotas, F&B orders and weekly events. As new four- and five-star properties emerge increasingly frequently, the gauntlet is thrown down to upgrade facilities that in most other parts of the world, would be deemed more than satisfactory. Consequently, the hotel manager is charged with commissioning and managing all the successful suppliers and contractors called in to assist him delivering the vision of the interior designer. Armed with knowledge on everything from cutlery to chandeliers, paintings and air conditioning units, today's hotel manager is no one trick pony and actually knows a thing or two about A/V systems.

Overlooking the Singapore River, the Grand Copthorne Waterfront Hotel Singapore is a premier conference hotel with 574 rooms and suites. Located on levels two to four of the hotel are 34 versatile, naturally lit meeting rooms attracting corporate and social events. Additionally, the hotel aims to keep its business guests under one roof with a variety of F&B outlets including Food Capital, a buffet restaurant, Grissini, an Italian grill restaurant, and Tempo, a dynamic bar. Like all modern hotels, these lower floors are responsible for generating a significant proportion of the annual turnover and as such any investments made needs to be quantified and qualified.

The hotel recently completed extensive refurbishment works during normal business hours. With its long list of Singaporean references including the W-Sentosa, Carlton, InterContinental and South Beach, Concept Systems Technologies Pte Ltd was appointed to install bespoke A/V and BGM systems in the Grand Ballroom, restaurant, bar and outdoor areas. The hospitality specialist's trademark signature of discreetly installed A/V systems, tastefully integrated digital signage, neat cabling and ease of use control are almost benchmark standards today in Singapore. As such, it was called to the Grand Copthorne address to deliver the same high standards within the specified budget and on time.

For the main part of the contract, Mr Fong and his team were required to install the new audio, lighting and visual systems into the Grand Ballroom. Capable of hosting 650 guests during a banquet or as many as 500 in a classroom setup, it can be divided into rooms A and B.

The Concept team was given three weeks to complete despite the fact that the Ballroom still needed to be fully operational at weekends. 'Consequently, this meant we had just four full days to complete the lighting part, then clear everything up and have it operational. Then we had to return on the Monday the following week and complete the audio in five days and finish the video system the following week.'

All the old cabling had to be removed and new cabling run in conduits in the 1.5m void above the false ceiling. Eighteen Martin Rush MH1 Profile LED moving heads provide various lighting scenes according to the desired ambience of the occasion and these were installed before the first deadline. 'We had to work 24-hour shifts for the final two days to ensure the programming was complete,' adds Mr Fong.

Two audio systems were selected to address the multi-functional needs of the 6m high room. Firstly each division is now adorned with L-R arrays each consisting of four EV EVA2082 dual 8-inch cabinets and a single EVA1151 15-inch subwoofer for sound reinforcement applications such as live music. Powered by six EV Q1212 dual channel amplifiers, DSP settings such as EQ, crossover, gain, delay and routing have been applied courtesy of an EV Netmax N-8000 16-input/16-output DSP processor, which can be remotely accessed thanks to RS-232 management. Dedicated Yamaha MGP32X consoles for each Ballroom are used for mixing the audio during events. The Ballroom also features 20 channels of Sennheiser wireless microphones in the form of ew152 G3 wireless body-packs and ew135 G3 hand held models ensure signal clarity courtesy of ASA1 antenna systems.

A new ceiling speaker system has also been integrated into its fabric to aid speech intelligibility and for BGM. A total of 38 equally spaced EV C12.2 12-inch coaxial models each tapped at 30W operate within a 50Hz to 20kHz frequency range. Enclosed in ceiling baffles and operating on 100V line impedance tapped at 60W, the EV C12.2 models are powered by a single CPS4.10 amplifier. 'The original specification was for 32 speakers, but we needed to add a further six to cater for an extended zone adjacent to the garden doors, so these are powered by an additional EV PA1250T amplifier,' explains Mr Fong. In total, 48 new microphone points have also been added, all of which needed cabling from



For live music, both Ballroom A and Ballroom B are served by L-R arrays each comprising four EV EVA2082 speakers and a single EVA1151 15-inch subwoofer

the upper control room to be fed and affixed to marble design walls.

With two thirds of the contract completed on time, no one on the Concept team believed in 'so far, so good'. 'The visuals were tough and



Four ceiling mounted Norton NF8 cabinets and dual SB112 subwoofers provide DJ sound reinforcement in the downstairs bar

ensured we had to work 24 hours around the clock for all five nights,' recalls Mr Fong. Previously equipped with two projectors, Ballroom A and Ballroom B required three projector screens for the upgraded visuals, allowing it to host A/V presentations when partitioned or combined. 'We removed the existing scissor lifts and replaced them with a customised 200kg version, which meant making incisions using templates. That also meant routing the new cabling from the control room before fixing the 200kg lifts in place.'

As the team had no time to go to the gym during these phased workouts, it managed to benefit from plenty of physical exercise on site. 'We also had to remove the original 6.5m x 5m screen down the four floors by the stairs as it wouldn't fit in the elevator. Weighing approximately 150kg each, three new LAV Hariz Mega View motorised



The four EVA arrays and 38 EV 8.2C ceiling speakers are powered by six EV Q1212 dual channel amplifiers and CPS4.10/PA1250T amplifiers respectively

Pioneer controller/mixer and twin CDJ900 Nexus turntables. Added SPLs come courtesy of four ceiling mounted Norton Audio NF8 cabinets and two SB112 subwoofers powered by two ND2 dual-channel amplifiers with built in DSP.

A programmed Bosch Plena PLM-8M8 matrix mixer and loudspeaker processor transmits music to the 86 EV 8.2C ceiling speakers located in the various zones including a private dining area, all day dining area, Café Brio, Tea Lounge and lobby. Seven PA2400T amplifiers have been rack mounted with a DSP processor to provide the power for the entire downstairs area. Additionally, the outdoor area is equipped with 10 Evid 6.2 surface mount speakers powered by three dual-channel EV Q1212 amplifiers that creates a musical ambience for guests. Tapped at 60W each, 18 EV 10.1C ceiling subwoofers enhance the low frequencies down to 45Hz. Finally, a Crestron RMC3 system provides full A/V control via eight wired TSW-550-B5 touchscreen interfaces.

There can be no substitute for hard graft, but the real skill lies in the detailed preparation that systems integrators such as Concept Systems Technologies continually demonstrate with their customised solutions, ordering of equipment well in advance and planned logistics making sure everything required on site is on hand to complete the job. As Mr Fong led his team for a well-earned drink upon completion, the hotel ticked a couple of boxes on the extended to-do spreadsheet. Peace of mind, however, is something that cannot be quantified or qualified. Its value is immeasurable.

www.concept-systems.com.sg



Both Ballrooms A and B are served by dedicated Yamaha MGP32X consoles for live mixing

screens were carried up the stairs and fixed into their positions.

Finally, three Panasonic PT-EX16KE 16,000 ANSI lumens projectors were fixed to the ceiling mounted scissor lifts to provide camera, Blu-ray and PC generated playback. A Kramer 8x8 HDMI matrix switcher accepts four VGA, HDMI and composite video inputs over the Cat-6 infrastructure and outputs these to the three projectors, whilst VP728 presentation scalers ensure picture clarity. Six customised multimedia panels for hosting VGA, PC audio, composite video/audio and HDMI inputs together with 11 microphone panels have been added to the Ballroom adding further flexibility to the venue's needs. Full A/V control for the Grand Ballroom and each division when partitioned is via a Crestron AV2 media presentation system and three Apple iPad touchscreen interfaces.

Once the dustsheets had been removed and all traces of the reconstruction had been removed, the first guests enjoying their champagne



Two new scissor projection lifts had to be installed into the Grand Ballroom ceiling in addition to refitting the existing one

reception were somewhat clueless to the crescendo of activity that had gone on immediately beforehand.

Relocated downstairs, the same team was commissioned to provide the hi-fi quality audio into the bar lounge. Here a DJ can enhance the ambience from the controls of the

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